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CONDUCTED BY

T. BRADLEY, M.D.

R. BATTY, M.D.

AND

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AN INVETERATE HEAD-ACH, SUCCESSFULLY TREATED. BY WM. LAMBE, M. D.

THE Rev. Mr. M—s, aged thirty-three, of melancholic temperament, had been afflicted with sick head-ach for sixteen years at the least. The paroxysms were of singular severity, lasting commonly for twenty-four, often for forty-eight hours, during which time he was incapable of any exertion, and generally, for a great part of it, was confined to his bed. These paroxysms were attended with great derangement of the stomach, eructation, frequently with sickness and vomiting. The attacks had recurred at irregular intervals: for the last year or two they had usually happened weekly; sometimes twice a week; for two months only, towards the end of last summer, he had intervals of two or three weeks; but in the autumn and beginning of winter they recurred as frequently and as severely as ever. At all times the bowels were much confined, the fæces hard and black, and the stomach perpetually oppressed with flatulence. From medicine, which had been applied under the best advice, he had received occasional benefit; but it never proved permanent, so that he was obliged to content himself with regulating the bowels, for which purpose the constant application of aperient medicines was indispensible. Except these distressing paroxysms, he could not be said to be out of health; the strength, sleep and appetite were natural; but the countenance was always of a dull and sickly paleness.

Having for some time been firmly of opinion, that constitutional diseases are produced by the *ingesta*, and among these, by contaminations of common water more than by all the others, I advised him to try the effect of a course of distilled water, confining himself to it entirely in every article, of which water is a principal ingredient. The proposed course could not be irksome to him, except as to

to the trouble it would occasion, he never tasting malt liquor, and using wine very sparingly. The continuance of the wine I did not prohibit.

With this advice he has complied, and began the course at Christmas last. His diet, in other respects, has been exactly the same as usual; and the only medicine he has taken are some aperient pills, to which he has been accustomed for some years. In about three weeks, he found very sensible relief. The paroxysms of head-ach recurred as usual, but with much less violence; and ever since the disorder has continued to decline. For the last three months he has been attacked only three times, and then with so little severity, as not to interrupt his usual occupations. The general health has at the same time been materially improved. The flatulence is wholly removed, and the sickly paleness of the countenance has been succeeded by a general appearance of health, which he has not possessed for many years. I think it right to add, that this account has been in a great measure drawn up by himself.

It is impossible to account for so remarkable an effect, in consequence of a change apparently so simple, without suspecting common water to be impregnated, at least occasionally, with some matter of infinitely greater activity, than those which have hitherto been discovered in its composition. Such a matter I have in truth detected, and this detection occasioned me to recommend the course with so much confidence. I believe that the matter I allude to is a product of putrefaction, and that it is very generally diffused through the water applied to domestic uses. This matter I apprehend to be the principal source of the acrimonies, which have been so generally suspected to contaminate the animal fluids. I should have ventured to lay the grounds of these opinions before the public some time ago, had it not been for the extreme difficulties I have met with in the chemical investigations connected with this subject; difficulties, however, which I believe to be very nearly surmounted.

Though head-achs, such as that above described, are commonly free from danger, there are few complaints more unyielding to medicine. A regimen then, which will eradicate so rooted a malady, we may hope to find serviceable in other obstinate and intractable diseases. The instance I have adduced of essential benefit received by this treatment is by no means the only one which I possess. In due time the public shall be enabled to form their own opinion of its merit. In the mean time I am persuaded

suaded that those, who choose to adopt it as an auxiliary to medicine, and in cases where medicine alone is inefficacious, will not be disappointed in any reasonable expectations they may form of its powers.

King's Road, Bedford Row, May 24, 1804.

To the Editors of the Medical and Physical Journal.

Gentlemen,

CASES of intermittent fever, from their being of rare occurrence in the practice of this Metropolis, seem not to have excited sufficient attention to their mode of treatment. When they do occur, they are imported from marshy countries, where the disease is endemic; and bark, in one form or other, is considered the specific remedy.

Notwithstanding that this disease is produced by marsh miasma, there are many other causes which may *predispose* the body to be acted upon by this unwholesome effluvia, such as cold and moist atmosphere, feeding upon acid fruits, crude and watery vegetables, low living in general; and, in short, every thing that tends to impoverish the fluids and impair the tone of the solids, favour very much the production of this complaint; a sufficient reason why they are found to be more frequent in the former classes of society than among the rich and affluent.

Agues are much more violent in their paroxysms in the country than they are in town, our noxious smokey atmosphere being, as it were, an antidote to this disorder. It is with a view to draw the attention of medical men more particularly to the use of opium in this complaint, that I am induced to publish the two following cases, where it will be seen to have produced the most striking and beneficial effect.

John Gash, a young man of about twenty years of age, of a pallid countenance, and weak lax fibre, became a patient of the Dispensary the seventeenth day of April, for the cure of an intermittent of the quotidian type, which he had contracted during a journey into Essex, where he had not remained eight and forty hours before he was siezed with this complaint; the bark was prescribed for him in doses of ʒj. omni 2d. hora sumd. which he con-

tinued taking until the 23d of April following, without any material alteration or benefit in his complaint; when I had occasion to see him in the absence of the attending physician, and ordered him to take the following draught an hour antecedent to the recurrence of the cold fit.

℞. Tinct. Opii. gt. xxxv. Zinzib. ʒj. Aq. menth. pip. ℥jß. M. ft. haust.

This produced a very favourable effect, for the fit was not nearly so violent nor long in its duration as it had been before. On the following day the draught was repeated with the addition of five drops of tinct. opii; the fit was scarcely perceptible. On the third day the draught was again repeated, when the fit did not return, nor has he felt any thing of it since.

Thomas Bentley, ætat. 23, of a habit of body similar to that of the former patient, applied to the Dispensary for the cure of a tertian ague. He had been taking the bark for nearly a fortnight (when I saw him) without any material benefit. I gave him the same draught which had produced so good an effect in the before mentioned case, and the effect here was equally striking and beneficial, the second dose having removed his complaint altogether.

Bark, therefore, although it, with an almost infallible certainty, cures the disease, ought not strictly to be regarded as a *specific* in this complaint, as a specific, properly so called, not merely cures, but is the only thing which *can* cure the malady to which it is applied.

The practice of giving opium in intermittent fever is neither singular nor novel, it having been adopted by medical practitioners at least half a century ago; in some old authors which I have read, this practice is mentioned, particularly by Dr. Berryatt, a French physician, who avers that he has found Dr. Sydenham's liquid laudanum more infallible in the cure of intermittent fever than even the bark itself, a single dose for the most part sufficing; he gave it to the patient in bed, an hour before the cold fit was expected, in doses of twenty-five to thirty drops.

Dr. Lind, an intelligent physician, who appears to have paid a great deal of attention to this disease, speaks very highly as to the effect of this medicine, when given during the hot fit. But, surely, it appears more consistent with the theory of the cold fit depending upon spasm, that to apply the remedy just before its attack, would be more likely to alleviate its violence and shorten its duration, and thus mitigate the violence, and abridge the continuance of the succeeding reaction. I am, &c.

MICHAEL BARTLETT.

Finsbury Dispensary, St. John's Square, May 29, 1804.

To Dr. BRADLEY.

Sir,

As from the symptoms of the following case, there was great reason to impute them to Hydrocephalus Internus as the cause, and as the treatment has been successful, I request the favour of your inserting it in the Medical and Physical Journal.

I am, &c.

H. L. HELSHAM, M.D.

Stoke Ferry, Norfolk, May 28, 1804.

July 7, 1803, I was applied to for Miss I. S. aged 13 years, who was just come from boarding school for the holidays.

There were evident marks of a slight derangement of intellect in her conversation. She complained of violent pain and throbbing in her head, and the pupil of the right eye was a deal dilated. Her pulse was full and rather slow, but there were no signs of active inflammation.

I ordered two or three leeches to be applied to the temples, her head to be shaved, and a blister laid over it. A pill with gr. j. of calomel to be taken every night, and a julep with tinct. castorei and spir. ammon. com. two or three times in the day. This method was regularly pursued till the 31st. the blisters renewed and kept running, and the leeches occasionally applied, without her having received any permanent benefit.

She then began to rub into the thighs and arms alternately, ʒj. of ung. hydrarg. fort. till her mouth became sore and she spat plentifully.

It was now the symptoms began to give way, and by the 21st of August she seemed to have no complaint but debility, for which she took a decoction of cinchona, and continued it unremittedly till the end of September.

Since then she has had some slight returns of head-ach, which have always been relieved by applying one or two leeches.

Remarkable Case of a Polypus antri Highmori.*

[With an Engraving.]

A Peasant's wife, who lived in a village near Gottingen, about fifty years of age, born of healthy parents, was accidentally struck, when ten years old, in the right cheek with the tooth of a rake, which penetrated nearly one inch deep. She lost a great deal of blood, but the wound closed a short time after. From this period however she was often attacked with acute pains in the maxilla superior, particularly during her menstruation, which occurred for the first time, sparingly, in her nineteenth year. The right cheek began gradually to swell; the pains continued from time to time, and alternated with other rheumatic complaints. When the pains were violent and the cheek much swoln and red, she used to apply cataplasms of aromatic herbs, which greatly relieved her. In her twenty-seventh year she married a peasant, by whom she had two children, who, to the present day, enjoy very good health and are brisk young men. All the time she suffered more or less violent pains, particularly in winter, and the swelling of the cheek proceeded very slowly, till after her last child-birth, when she perceived that the tumour of the cheek increased more evidently; the eyes became a little prominent, and the pains more frequently returned. In this state she remained for many years; but after the cessation of fluxus mensium, which happened in her forty-sixth year, the condition of the patient became considerably worse. The bulb of the right eye protruded from the orbit, without any diminution of sight, the teeth of the upper and lower jaw fell out, the respiration by the nose was much impeded, and the power of smelling quite gone. Speech and manducation became more difficult, and the tumour, protrusion of the eye, &c. extended to the left side. All this time she had never taken the advice of a medical man, but had committed herself to the care of quacks and old women.

In June, 1803, the local affections being exceedingly increased, the pains almost insupportable, and the patient attacked by febrile symptoms, which confined her to her bed, the husband walked to Gottingen, in order to consult Dr.

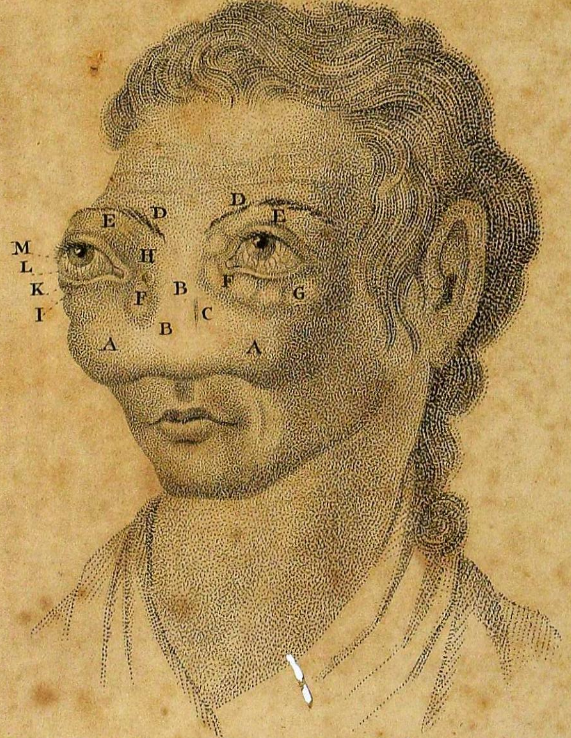
* This case is described in Dr. Eichhorn's Inaugural Dissertatio de Polypis, &c. Gottingen, 1804.

Longitudinal Section of the Rectum to shew its internal surface as alter'd by disease.

See p. 22.

Remarkable Case of a Polypus antri highmori.

See p. 6.



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Dr. Noehden, who ordered several remedies, which he thought proper, according to the imperfect relation of this man, who only told him her present condition, without mentioning a syllable of the progress and beginning of her chief complaint. The remedies however operated so well, that within a few weeks the most urgent symptoms were removed, the fever subdued, and the patient able to quit the bed. The diseases of which she now chiefly complained were a dimness of sight, and pains in the upper jaw, but they were much less violent than before. As these symptoms continued, notwithstanding the most efficacious remedies, Dr. N. desired the patient to come to town, that he might see her, which he had not hitherto had an opportunity of doing. The Doctor was surprized at the great deformity of the face; and on examining the patient, and exploring the state in which she was, soon found that she ought to have recourse to the assistance of surgery, and therefore recommended her to Dr. Langenbeck, an able surgeon of that place, at whose house Dr. Eichhorn saw and examined the patient.

The chief symptoms observable at that time were, 1. A swelling of both sides of the maxilla superior, which was hard and a little red. 2. The nasal bones flat. 3. In both cavities of the nose a polypus of a red colour. 4. The bulbs of the eyes much protruded, and the sight diminished. 5. The cornea pellucid. 6. Saccus lacrymalis tumid and inflamed. 7. Puncta lacrymalia shut. 8. A small tumour in the region of the glandula lacrymalis. 9. A continual watering of the eyes. 10. The palate was depressed, rather convex, and yielded like a tumour to the pressure of the finger. Except these symptoms, the patient found herself pretty well; appetite good, pulse soft, and not very frequent. The polypi in the nose induced the present gentlemen to ascribe the above-mentioned deformity, and the attending symptoms, to a similar excrescence which had taken place in the antrum Highmori. On having sufficiently considered the case, Dr. Langenbeck proposed an operation, as the only expedient to save the patient's life, however doubtful its success might seem to be. He intended to have made an incision in the palate, and by this way endeavour to extract the contents of the antrum Highmori; but the patient could not by any means be persuaded to submit to this operation, and returned home without farther medical assistance. Under the care of quacks and old women, to whom the patient had again recourse, the disease evidently in-

creased in the course of a few months, so that, when Dr. Eichhorn visited her in December, 1803, in order to observe the progress of the disease, and to obtain a drawing of her face, the disease had so far proceeded, as is represented in the annexed engraving.

EXPLANATION OF THE PLATE.

AA. The tumour of the maxilla superior very considerable.

BB. The nose formed with the maxilla one even tumour, and could not be distinguished. The bones of these parts soft and yielding to pressure.

C. A cicatrice where a barber had made an incision.

DD. The eye-brows, much drawn from one another.

EE. The bulbs of the eyes enormously protruded and total blindness of both eyes.

FF. The right saccus lacrymalis very tumid.

G. The glandula lacrymalis extremely swoln, and extending in form of a bag from the upper eye-lid to the temples.

H. An opening of the right saccus lacrymalis, from which a thin matter copiously issued.

I. Puncta lacrymalia extended, and discharging a great deal of matter.

K. The glandulæ meibomianæ discharged a similar matter.

L. The blood-vessels of the membrana conjunctiva much extended, and the conjunctiva tumid, red, and hanging over the inferior eye-lid.

M. The iris, protruded by the pressure of the crystalline lens, and much distended, seemed to adhere to the interior coating of the cornea. The pupil immoveable.

These symptoms were attended with an insupportable stench, which surrounded the patient, a great emaciation of the body, extreme weakness, want of appetite, sleepless nights, pains, and excruciating heat. Although Dr. Eichhorn offered his assistance, in order to mitigate at least the most excruciating pains, she entirely refused to take any medicine. In this miserable condition she continued for some weeks; and when he saw her last, part of the polypus antri Highmori had come out of the opening H. hanging down to A. A few days after she died.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Have sent the Resolution of the Grand Jury at the Assizes at Horsham, relative to the extermination of the small-pox from the county of Sussex; an example which I hope, will soon be followed by every county in England.

In

In consequence of this resolution, I have the pleasure to inform you, a society is already formed; of which His Royal Highness the Prince of Wales is Patron, and Lord Pelham President. It is also supported by the Members for the county, and many other persons of distinction.

I hope soon to receive a copy of the plan of the Society, which I shall not fail to transmit.

I have lately received letters from Dr. M'Dermot, of Coolavin, near Boyle, in Ireland; informing me, that he has experienced the efficacy of the spongia usta in the shape of lozenges, which he never was so fortunate as to experience, when it was given in any other way. He speaks in very handsome terms of your Journal, which was the channel through which I conveyed to the public my remarks on the subject; from a perusal of which, Dr. M'Dermot was induced to try the practice. He has one obstinate case under his care, which has resisted this and every other remedy that is commonly employed for the disease.

Since I published my observations on the subject, as well as before that time, I have met with some cases which I could not cure; but a greater number which have yielded to the medicine before-mentioned; among which was one of above forty years standing, which greatly impeded respiration and deglutition, and rendered the life of the woman who laboured under it perfectly miserable.

Although the burnt sponge certainly is more efficacious in the form of a lozenge, yet, in one instance, where the patient could not take it in that manner, it succeeded very readily in the form of pills. This case is the only one in which I have known the complaint yield readily, when the medicine was swallowed at once; though I have often given it in pills, as well as in an electuary, and in a liquid form.

How far the bronchocele partakes of the nature of scrofula has been made a question; debility appears to be the pre-disposing cause of both these affections, which occur much more commonly in those of a relaxed habit than in others; and much more commonly in women than in men. I am, &c.

JOHN RING.

New Street, Hanover Square,
June 14, 1804.

Resolutions entered into by the Grand Jury, at Horsham, the 19th of March, 1804.

The Honourable JOHN THOMAS CAPEL,
FOREMAN of the GRAND JURY.

RESOLVED,

1. That the Grand Jury do highly approve of any attempt which may be made, to suppress and eradicate that most fatal distemper the small-pox, and are willing, individually, and as far as their influence extends, to further the views of the Royal Jennerian Institution, already established in London for that purpose.

2. That the Grand Jury do strongly recommend to all medical persons, and others, of the county of Sussex, immediately to adopt and encourage the Jennerian system of inoculation, and do request them to transmit such plans on or before the 15th of April, as may appear most conducive to attain the desired object of eradicating the small-pox, to the person who by the Committee hereinafter-mentioned, may appear best qualified for the office of Secretary, and which appointment the Committee are requested to notify in the public prints of the county, as soon as it has taken place.

3. That the undermentioned noblemen and gentlemen, who signed the recommendation of the Jennerian system of inoculation, at the meeting of Deputy Lieutenancy at Lewes, together with the county Members and Foreman of the Grand Jury, be requested to form the Committee, with any other county gentlemen who may be desirous of encouraging this praise-worthy institution.

Names of the Committee:

Lord Pelham,	George Shiffner, Esq.
Lord Gage,	Thomas Partington, Esq.
Lord Sheffield,	General Lenox, } County
Sir J. Bridger,	John Fuller, Esq. } Members.
Thomas Kemp, Esq.	Hon. John Tho. Capel.

4. That the thanks of the Grand Jury be given to Dr. Tierney, of Brighton, for his plan delivered in for promoting Vaccine Inoculation.

5. That a subscription be entered into to defray the present expences, as well as for all other purposes intended to be promoted by this undertaking.

6. That the above resolutions be printed in the Lewes Journal, Portsmouth Telegraph, and two London Papers.

7. That John Drew, of Chichester, Esq.; Francis Whitfield, Esq. of Lewes; and Tilden Sampson, Esq. of Battle, be requested to receive subscriptions for the use of the institution.

Answer to Mr. Griffin's Queries on Vaccination, from Physicians and Surgeons of Edinburgh, Perth, and Dundee.

June 15, 1804.

We have received the following Communications from Dr. Walker, who has just obtained them from Mr. Griffin, passing through London last night on his way home from Scotland. The Rev. Gentleman, however, must pardon our bringing forward, in italics, what he, minister of peace, wished to be kept back for fear of any interruption of quiet and good neighbourhood. The Medical Council of the Royal Jennerian Society have voted him thanks for his pamphlet, and for his exertions to promote the diffusion of Vaccine Inoculation; and he must not conceal or curtail the valuable testimony of our northern neighbours. We understand, that if his stay had been longer in Edinburgh, he would have been favoured with the whole weight of that great school of physic in favour of the Jennerian discovery.

To the Rev. Mr. GRIFFIN.

Sir,

OUR friend, Dr. Charles Stuart, has transmitted to us a letter which he received from you a few days ago; and has requested us to answer the following queries which were contained in it, viz.

Query 1. How long has vaccine inoculation been practised in this city or neighbourhood?

Query 2. Whether any facts have occurred tending to render it doubtful, whether the vaccine inoculation be a permanent preventive of variolous infection?

Query 3. Whether any have been evidently exposed to the infection of small-pox who have been vaccinated more than three years?

Query 4. Whether it be not the opinion of the medical gentlemen of Edinburgh, that if vaccination be a preventive for one year, it will be a preventive for life?

Answer

Answer to Query 1. Vaccination was begun here in the year 1799, and became general the following year.

On the 18th of February, 1801, we began to inoculate at the public dispensary, and since that time have vaccinated above three thousand, besides many hundred children privately. There must also have been a very great number vaccinated by the other medical practitioners, as they have all heartily concurred in their endeavours to convince the lower ranks of the propriety of having their children vaccinated; and they have succeeded much beyond their expectations.

Answer to Query 2. We have met with no facts to render it doubtful whether vaccination be a permanent preventive of variolous infection. Nor have we ever heard from our brethren, or any others, of such facts occurring in this city or neighbourhood.

Answer to Query 3. We know of many children, vaccinated more than three years ago, who have of late been repeatedly exposed to the infection of small pox; among others, some of our own children, who were vaccinated five years ago, without having suffered from the variolous infection. Indeed, we hear daily of such instances from the mothers of the children who were vaccinated at the dispensary early in the year 1801. Besides, the small-pox have been so frequent here for many months past that innumerable instances of the kind must have occurred, had the preventive not been permanent.

Answer to Query 4. We think that it must not only be the opinion of the medical gentlemen of Edinburgh, but of every thinking man, that if vaccination be a preventive of variolous infection for a year, it must be a preventive for life. The contrary opinion appears to us to be very unphilosophical, and contrary to our ideas of physiology and pathology. *Therefore we humbly think that Mr. Goldson's pamphlet is founded on such false principles, that no part of it can do any harm, except the* TITLE, *and that only to weak or unthinking people.*

We have thus answered your queries as fully as our time will admit of; and, although we have done it in our own names, we believe that we have given you the sentiments of all the medical practitioners of Edinburgh and the neighbourhood.

Sincerely wishing you success in your labours in the vineyard of humanity; and entreating that you may freely apply to us if you think that we can, in any way, assist you

you in furthering the great work in which you are engaged, We are, &c.

Wm. FARQUHARSON, M. D.
JAMES BRYCE,
A. GILLESPIE.
Surgeons to the Vaccine Institution at the Public Dispensary of Edinburgh.

Edinburgh, June 9, 1804.

*** Mr. Alexander Wood, Surgeon, Dr. Gregory, Dr. Charles Stroud, and, through him, Dr. Monro, have expressed their concurrence in the above to Mr. Griffin; also Drs. Stuart, Kelly, and Wood, of Perth, with Dr. Willis of Dundee, who have inoculated thousands, begining more than four years ago, and from the first to the last exposing those whom they vaccinated to variolous contagion.

To the Editors of the Medical and Physical Journal.

Gentlemen,

An uncommon Case of Monstrosity in the fœtus of a woman having lately occurred, you may possibly think it not altogether unacceptable to your Readers. Inasmuch as it vindicates, in this instance, the veracity of an author who has been rather playful in his ideas upon the subject, the concurring testimony of a fact may be of some advantage.

The woman had twins near the seventh month of pregnancy. She was uncommonly large, and the flow of waters at birth immense.*

The first born child was perfect; the other wanted head, neck, arms, and chest. The ribs, upon dissection, were apparent, though minute, without any regular cavity of thorax.

As a similar case exists in Palfyn, and nothing more extraordinary happened at the time of labor, or previous to it, on that head I shall forbear troubling you with a more minute account.

Palfyn

---

* The fœtus was given to me by my friend here, Mr. Rowntree, who attended the labor.

Palfyn having given a description of the abdomen and pelvis, it induced me also to examine those parts; for it is instructing to observe how the powers of nature enable her to effect varieties, under circumstances and form apparently the same.

Upon the abdomen, above the navel, there was a kind of blind hole, which might have led to the supposition, that it was a passage communicating internally with vessels. Neither outward nor inward examination shewed any thing but an imperfect indentation.

Corresponding with the situation of the shoulders, there was on each side a considerable sac, which gave the feel of a viscus beneath; and from the extent of the cavity on the right side, it particularly appeared to include the liver. It also evidently contained a fluid, which was the cause of the projecting roundness. Upon opening these sacs, not any thing but a meconium-like fluid was contained.

The left cavity was somewhat intersected by small delicate ligamentary webs, interspersed with white filamentous bands, like flattened nerves.

The septum betwixt the two cavities was transparent and ligamentous, surrounded by membrane.

The abdomen, from the smallness of the fœtus, necessarily afforded very little space betwixt the parietes of the cavity and its contents.

The liver was the most conspicuous organ, extending over both sides, in two large distinct lobes, included within a very evident and beautiful sac.

Each larger lobe was distinguished by reticular lines, as in the conglomerate gland, without gall bladder.

From their uniting part arose the umbilical vessels, meeting as usual the urachus.

I could not perceive any stomach, spleen, or pancreas; nor discover any precise direction or mark of colon.

The intestines were very short and round, evidently terminating in the rectum, which was of natural conformation; the ileum was lying on each side the centre of the abdomen.

The funis, on quitting the navel, projected with a knot. After tracing the urachus, and the vessels from the liver to the funis, I opened the small pouch of the funis, which was attached to the navel. In it were contained several short convolutions of the ileum, with an evident caput coli, and an appendicula vermiformis.

This was a congenite umbilical hernia, which had almost eluded observation, having no trace of it before it was opened.

Somewhat

Somewhat lower than the natural situation of the kidneys, though not included cellular substance, were two very small glandular looking bodies of an oblong shape; a small white band or vessel traversed downwards from them towards the pelvis.

It being a female fœtus, I sought for the uterus, &c.

There was not any uterus or bladder, nor the appendages of the uterus, unless the two preceding glands were ovaria, which they did not appear to be.

The external passage of the urethra was pervious to a small wire, being a cul de sac, or was lost as such in the cellular membrane superficially under the skin.

The vagina had the semblance of being closed, yet a probe passed readily; but it passed into the urachus in a continued and obvious way.

There was an abdomen bounded by a membranous diaphragm, without apertures or ligamentous structure.

Should any gentleman of a lively turn be disposed to amuse himself with M. Palfyn's recital of the original cause of the production of this, and of such like formations, he will find it in his Traite des Monstres.

Having myself, little genius for such enquiries, I solicit others to undertake them, with this request, however, that the public be indulged by facts before they exercise their talents upon the physiology. For, sometimes, I am apt to think, there are to be perceived little monstrosities as well of the mind as in the body.

> "Quo vobis mentes, rectæ quæ stare solebant
> Antehac, clementi sese flexere viai?"

I am, &c.

York, June 11, 1804. JAMES ATKINSON.

CASE *of* FRACTURE *of the* OCCIPITAL BONE *with the* LOSS *of a* PORTION *of the* CEREBELLUM, *terminating favorably. By* J. EVANS, *of Ketley, Shropshire.*

ON the 2d of December, 1803, I was sent for to John Johnson, aged 27 years, servant to Joseph Reynolds, Esq. of this place, who half an hour before had received a kick upon the posterior part of his head, from a large waggon horse in his master's stable. On my arrival I discovered a wound in the scalp, about an inch and a half in length, filled with brain. Upon examination I could plainly feel a part of the skull considerably depressed near the attachment

ment of the Trapezius muscle. The man had lost some ounces of blood on the spot where the accident happened, but the hæmorrhage had ceased when I saw him. I found him tolerably rational, but slow in answering questions; his pulse feeble and irregular. I directed a bread and milk poultice to be applied to the injured part, and an opiate to be given him in the evening, which his stomach rejected. He passed that night without much pain. The following morning the portion of brain which lay in the wound (being the size of a small walnut) came away with the poultice. Apprehending fatal consequences were likely to ensue from so severe an injury, I requested to have a consultation with Mr. Yonge, of Shiffnal, a gentleman highly respected for his professional abilities. We were unanimous in our opinion, that while the man remained free from symptoms of oppression, it would be most prudent to leave the business to nature, without attempting to elevate the bone. His bowels were kept in a proper state by small doses of castor oil, and the pain of his head (which was sometimes violent) was occasionally alleviated by opiates. Dry lint and a bread and milk poultice were the applications to the wound during the suppurative process; when the discharge became less, lint covered with a thin piece of sponge were the only dressings made use of. On the tenth day from the accident the patient had a considerable hæmorrhage from his nose, which seemed of service to him in relieving an excruciating pain in his head, which he at that time complained of. At the expiration of five weeks his usual faculties and spirits were quite restored. Previous to that period he said his sight had been very imperfect, although he never complained of it, and was extremely low from the danger he apprehended himself to be in. During his confinement, his diet consisted chiefly of milk, broth, and tea, according to his inclination. Being naturally a sober man, he would not suffer his attendants to give him any thing that was heating. On the 20th of February, he was well enough to return to his usual employ, but his wound was not healed of some weeks after. The depressed portion of the os occipitis was near the *third* of an inch below its natural level; being not wholly detached, no exfoliation took place. Is it not probable, that the portion of brain forced out of the skull made a sufficient space for the depressed bone to lodge in, without causing those alarming symptoms which generally attend such injuries? The depression is now so large as to admit the end of a moderate sized thumb.

June 12, 1804.

OBSERVATIONS

OBSERVATIONS ON THE SEVERE DYSENTERY, *as it existed on board the Lord Duncan East Indiaman during a Voyage to Bengal, in* 1802—4. *In a Letter to* JOHN HUNTER, M. D. F. R. S. *Physician to the Hon. East India Company. By* JAMES ATKINSON.

(Continued from Vol. xi. pp. 508—518.)

CASE II. Mr. W——, passenger, of a rigid fibre, had been much exposed to the sun in an open boat, and afterwards to heavy showers of rain. On the 18th of October, when I first saw him, he had laboured under a low fever three or four days, but with no distinct remissions. He is of a melancholy disposition, and is subject to fits of insanity. He had taken an emetic the first thing, then the bark, which with difficulty was retained, though assisted by opium. For two days the stomach was very irritable. I found him with brown furred tongue and lips, cold skin, and great despondency. His pulse was weak and about 120. Prescribed draughts of camphor, tinct. opii gtt. xv. and tinct. cinchonæ ℥iij. to be taken every four hours, and wine ℔ij. per diem.

19th. The pulse more full and regular, with a soft skin. He is continually changing posture, and is very low spirited.

20th. The tongue not so black, but still foul. Feels no particular pain. Very obstinate, and often refuses his medicine. Pulse regular. I now find that he has had frequent stools, scanty and bloody, since yesterday, with tenesmus. He does not appear feverish in the smallest degree, but has a cold and dry skin. Former medicine discontinued. ℞. Ant. tartariz. gr. j. calomel. gr. iij. ext. opii, gr. ß. ft. pil. to be taken every three hours.

21st. Tongue still foul. Took the pills regularly, from which he found great relief. Skin soft and moist. In the night he called for his medicine, and slept soundly at intervals. He has not passed any blood since yesterday evening, but his stools are still slimy, and attended with tenesmus. Complains that his gums are a little sore.*

22d. Dysentery easier. Tongue whitish, but perfectly clean round the edges. In good spirits; gentle perspira-

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* Whenever the gums become slightly affected, the disease almost invariably abates, and the calomel is immediately withdrawn. Medicine and food to invigorate the system are still continued.

tion. Omit the pills during the night, and take an anodyne at bed time.

23d. Purging and tenesmus gone. Omit calomel and take a full diet. An anodyne at night.

24th. Recovering strength fast. Dismissed.

CASE III. When at Madras, Miss Jeffreys, a delicate girl, aged six years, seemed to be attacked with that modification of the dysentery, which medical writers have called *fluxus celiacus.* The stools were of a perfectly white transparent mucus. Her appetite was squeamish, had feverish symptoms and a very distressing tenesmus The calomel and opium pills with nourishing condiments were given for ten days, and the disease disappeared. Eight other children lived in the same cabin, none of whom had the complaint.

CASE IV. As an evidence of the efficacy of mercury in chronic dysentery, I shall relate the following case of Mary Armstrong, aged 20. During her pregnancy at the Cape of Good Hope, she had been attacked with remittent fever and the dysentery, most probably induced by a debilitated system, when under the operation of mercury for lues venerea. She was harrassed by this combination of diseases at the time that the child was born. She did not make any application till a month after she came on board. Her complaints were then, repeated purging of mucus and blood, slight febrile symptoms, and debility. The child, worn out by the same distemper, died when about six months old, in extreme misery. The pills of calomel and opium were immediately prescribed for the mother, and good diet and port wine liberally allowed. The next day the purging and tenesmus very little abated, and she was excessively languid. The medicines continued. From this time to the eighteenth day, March 20, the purging and griping gradually diminished; and as her mouth and throat were slightly affected by the calomel, a pill consisting of extract opii, gr. jß. cerus. acet. gr. j. pulv. zinizber, gr. iij. was ordered to be taken, and repeated twice a day. The medicines were continued till the 24th, when becoming free from every troublesome symptom, she was dismissed, and had no relapse during the remainder of the passage.

CASE V. Samuel Rosey, aged 17. When first attacked with the dysentery, on the 11th of June, at Diamond Harbour,

bour, he passed about thirty evacuations a day, of a mucous and purulent kind, with great pain and tenesmus. Calomel was administered; but the next day he went to Calcutta, and did not return till the 19th, during which time he had had frequent stools with ascarides and violent gripings and tenesmus. Calomel c. opio.

21st. Appetite bad; countenance sallow; purging and other symptoms as yesterday.

22d. The same, with acute pain in the left hypochondrium, and weak pulse. Sago and wine.

23d. Pains of the side and purging abated.

24th. Has had but two or three evacuations the last twelve hours. Mouth affected. Has very distressing griping pains. Take a draught with tinct. opii et sp. vol. c. c. aa. gtt. L. twice a day, and omit the calomel.

25th. No complaint.

A detail of cases exactly similar would be tedious and uninteresting, otherwise fifty might be given, which yielded to calomel and opium alone. Those treated by other medicines were lingering and obstinate. And though experience proves the superior efficacy of mercury in this disease to a demonstration, cases will occur where it cannot be administered so extensively as could be wished. In those of the chronic form, attended with universal agonizing pains and great emaciation, the almost exclusive use of opium becomes indispensable. Of this description is the following of fatal termination.

Case VI. T. Phillips, aged 22, of the 34th regiment, had, just before he came on board, laboured under fever and the dysentery. He was highly debilitated, and the crowded ship, combined with very bad weather, increased the violence of his malady. From the commencement he had that dejection and expression of countenance, described by Hippocrates, and from the 2d of March to the 19th, he continued painfully wasting away with very transient intervals of ease. The dose of opium had been gradually increased; but as a circumstantial detail would be unimportant, the annexed statement from the 19th to his death may be sufficient.

20th. Has a hoarse cough, and spits much. The eyes sunk; he is blind of the left, and can see but indistinctly with the right eye. Sallow countenance, and has a hectic glow on his cheeks. Teeth and lips covered with an incrustation of black matter. Pulse very feeble. Takes a

 grain

grain and a half of opium every three hours. Wine and sago ad libitum.

21st. Pulse scarcely perceptible. Purging almost constant. Has taken nothing but a little wine all day.

22d. In the same hopeless state as yesterday. An anodyne at night.

23d. Last night about twelve he was seized with severe pains and griping. Has vomited a quantity of bilious matter, and has recovered in some measure the sight of the left eye. Towards evening he has had universal pains; purging very frequent and bloody. Take two grains of opium every three hours.

24th. Pulse full and rather quick. In very little pain, and drinks plentifully of wine. Has had only three stools to day. Continue the medicine.

25th. Feels a numbness all over him and a deathy sensation about the heart. Purging seldom, and the pulse rather feeble. Expectorates a frothy mucus.

26th and 27th. Much the same as on the preceding day, except the addition of singultus.

28th. Pulse pretty full; spits a viscid mucus. Has a ghastly appearance, and is wasted almost to a skeleton. The liberal use of port wine has had a good effect in keeping the spirits and pulse from sinking. On the 21st, 22d, and 23d, when he could not take the usual quantity of opium and but little wine, the consequences proved the absolute necessity of their administration.

29th. Last night, about ten o'clock, he was attacked with constant purging. He seemed nearly suffocated by the mucus in his throat, and this morning his head and bowels are much affected. In the evening he expired.

I had imagined whenever the disease put on such a dreadful appearance, that no advantage could be possibly derived from medicine; but W. Raffarty, another chronic patient, labouring under symptoms equally formidable at the same time, recovered by exactly the same treatment. With the dysuria he had a complete phimosis,* which disappeared as the original disease wore off. The tormina of the bowels was, if possible, more exquisite than in the case of

* The phimosis occurred when the throat was very much affected. Could this arise from sympathy or associated motions between the fauces and genitals, as in parotitis, hydrophobia, hanging? It is certain that there was no venereal infection whatever, and perhaps any morbid action in the pelvis could not have induced such a symptom.

of Phillips, and the evacuations of blood much more considerable.

Case VII. Joseph Henricks, poulterer, aged 20, was just recovering from fever and the dysentery when he went to Calcutta, and there, from drinking excessively of Bengal rum undiluted, and exposing himself during intoxication to the alternate influence of atmospheric heat and moisture, the disease returned with redoubled violence. From the 30th of July to the 4th of August, he had considerable purging, nausea, tenesmus, and loathing of food. On the 5th he was much reduced. His complexion was sallow and cadaverous; the pupils contracted to a point; his pulse quick; and had excessive thirst. Take four grains of calomel three times a day, and wine and congee for common drink.

6th. Had an anodyne last night with tinct. opii gtt. xl. The pupils more dilated; the purging diminished, but still mucous and purulent. Great pain in the pelvis and bladder, with dysuria. Towards the evening the tenesmus was excruciatingly severe, and nothing voided but a white slimy material. Pulse weak and his spirits sunk. Had an oleaginous aromatic draught, but it was instantly rejected. Ordered forty drops of laudanum to be taken every six hours.

7th. Every way better this morning. Had but two or three stools last night. Has taken some tea and he seems refreshed. Pain of the bowels returned. Apply to the abdomen a volatile liniment with tincture of opium. In the afternoon the evacuations consisted of mucus mixed with blood. Latterly no food or medicine has remained on the stomach. Repeat the draught, and add to each, ol. menthæ ppt. gtt. vj.

8th. Stools are again nothing but mucus. Pupil still contracted, and the pulse small. Debility of the stomach continues. To have a blister over the region of the stomach. Immerse the feet and legs in warm water twice a day, and take two grains of calomel every four hours. Has complete loathing of food, wavering and confusion of head.

9th. Blister rose well. Pulse quick and more full. Pupils more dilated. Is now perfectly collected. Purging the same, but with much less pain. With each dose of calomel take fifteen drops of laudanum.

10th. Pulse very weak. Continual purging in the night, but with less pain than usual. Refuses all kind of food and nourishment. Great despondency. Take tinct. opii gtt.

gtt. lx. in wine, and if retained, to be repeated every six hours. In the night he had cold and clammy perspiration; feeble pulse; purging nothing less. Add to each draught elixir vitriol gtt. v.

11th. The pulse still small, and the purging greatly diminished. Has a little appetite and is free from pain. Passes very little urine.

12th. Yesterday the purging was trifling, but increased in the night; almost every motion of the body or change of posture producing an inclination to go to stool. This morning he is much emaciated. His countenance is meagre and sallow, pupil contracted, and very weak pulse. Vibices appear on the breast. Stomach still irritable. Had an anodyne aromatic draught, which was vomited up a few minutes after it was taken. Has a ghastly aspect. Pupils more contracted, and the pulse hardly perceptible. Obstinately refuses nourishment. About a pint of coagulated blood was passed at one stool. He is very restless. Take half a drachm of the bark, and five drops of laudanum. All the day he has passed by stool the same bloody material. Has great confusion of intellect. Repeat the bark every two hours.

13th. Pulse very feeble. Pupil dilated more than in health. Frequent stools of clotted blood. In the middle of the day the purging diminished. Spits a good deal and sometimes blood. Absolutely refuses both medicine and food. At nine P. M. he died without the least symptom of pain.

Appearances on Dissection.

I opened the body ten hours after death. The vesicula fellis was much larger than usual, and distended with bile, which had strongly tinged the peritoneum, stomach and colon. On evacuating the gall bladder, I found the ductus communis choledochus almost impervious. It had in all probability become paralytic from the excessive stimulus of burning spirits he had so imprudently swallowed. There was no appearance of bile where the duct enters the duodenum. The liver was of a brownish leaden colour, very firm, and of the natural size. On making an incision along the small intestines, the glandulous coat was eroded in many parts, and covered with a viscid dark coloured slime. The colon was considerably ulcerated, and studded with livid purple spots. The rectum* was thickened and ulcerated

* See the drawing.

ated more than the colon, and contracted to half its diameter. Cutting into the fat between the bladder and rectum, there appeared intersections of membranous filaments loaded with hydatid-like vesicles, from which rushed out a transparent fluid. The bladder contained about two ounces of muddy urine. The prostate gland was enlarged, and the urethra, towards the neck of the bladder, much contracted. The stomach had nothing in it but a little brownish coloured fluid, and the mucous membrane was much abraded. The whole intestinal tube was empty of every thing but wind. The other viscera had no marks of disease.

You will observe, Sir, that I have here, contrary to general practice, placed the fatal cases in the most conspicuous point of view; and though they furnish little argument against the above mentioned treatment, they illustrate sufficiently the deadly tendency of the disease. As all theory is supported by a general collection of inferences, legitimately drawn from facts, that must be the most correct and comprehensive which can be applied to the greatest number of cases. For however humiliating it may appear to medical men, our brightest prospects will be often overcast, and the most approved means of cure will be occasionally ineffectual. Then we may truly say with the sententious Euripides, Τι βροτος φρονεω λεγω. No medicine was ever discovered to be uniformly successful in any complaint, and it would be idle and presumptuous to recommend one possessing these qualities in the dysentery. Those who, with self complacency, publish to the world the invariable success of particular practice, must conscientiously know what numbers are dying in secret, and must certainly feel, in desperate cases, the inutility of all human exertion.

The method of treatment here pointed out, rests upon the solid basis of experience, unaided by the seducing embellishments of hypothetical reasoning. The indulgence of imagination in the construction of theories, has certainly very considerably inpeded the progress of practical science; for admitting the ingenuity and originality of those theories, they have only flourished to be forgotten; and the most illustrious speculative physicians on record, have left very little behind them of essential benefit to mankind.

APPENDIX.

For the particulars of the following dissection I am indebted to Mr. Ashton, an ingenious surgeon in the honorable

ble Company's service, to whom the method of treatment above recommended was suggested, and which he has found peculiarly advantageous. The subject of the dissection was a soldier on his passage from India, aged 35, of an impaired constitution and meagre aspect. He had suffered severely from syphilis, and had a bony tumour on each tibia. He was invalided for what he called "the pains in his bones." He died of the severe dysentery.

Dissection, Six Hours after Death, February 14, 1804, *at St. Helena.*

On opening the abdomen by the common crucial incision, the omentum appeared nearly obliterated, and what remained was deprived of its adipose substance.* The jejunum and ileum were in a high state of inflammation,† and looked as if their vessels were distended by a minute injection, but there was no adhesion of parts; their internal surface was very much diseased and gangrenous, not even the size of a sixpence being free from ulceration. The muscular coat was considerably discoloured. The duodenum had no external inflammation, but internally it was much the same as the jejunum and ileum.

The affection of the colon about the sigmoid flexure was similar to the small intestines; the villous coat was soft, and easily separated by a slight touch. Between the rectum and the transverse arch, there were several contractions,‡ some of them so small as only to admit the passage of the little finger. Above them were some black fæces but not hard or scyballous. The rectum being slit up, also exhibited a more

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* He complained during his illness of cutting pains under the umbilicus.

† If this was inflammation, to what range or class of diseases must it be referred? Is it to be cured by the antiphlogistic regimen? Inflammations arise from abundance of blood; but is it inconsistent with all medical facts to conjecture, that they may also arise from a penury of blood? This man was emaciated and infirm to the last degree, and still the dissection proves that the intestines were inflamed, "as if their vessels were distended by a minute injection." In this diffused redness there is something essentially different from common inflammation, or such as depends upon sthenic diathesis. Pain arises from diminished as well as increased action; and as I think no physician would employ the remedies usual in inflammations under the circumstances of the above case, and as invigorating the system must be the true indication of cure, there can be little doubt that the two inflammations depend upon very opposite causes. Perhaps it is the peculiarity of asthenic inflammation to terminate in gangrene.

‡ This contraction is a consequence and not a cause of the disease, as Dr. Cullen imagined.

a more diseased appearance, ulceration having nearly penetrated through the coats. The mesentery was highly inflamed, and some of its glands increased to the size of a large almond, hard but not schirrous. The stomach contained about half a pint of a brown frothy fluid, and surrounding the pylorus; it was in a state similar to the duodenum. The liver was of a brown stony colour, soft and rotten, separating between the fingers. The gall bladder* was much distended, and contained at least seven ounces of very black, thick, ropy bile. The pancreas was much smaller and harder than natural. The spleen and kidnies seemingly as in health. There was no preternatural appearance in the thorax; only the heart was very lean, small, and firmly contracted.

London, May 1, 1804.

Practical Observations on the Treatment of the Scarlet Fever and Sore Throat.

HAVING lately read several publications on the scarlet fever and sore throat, in which are recommended remedies agreeable to the prevailing theories and speculative opinions of the day; I beg leave to lay before your readers a practice in that disease I have, for upwards of thirty years, invariably followed with eminent success.

It is well known that many pass very safely through the scarlet fever in its mild state with little or no medical assistance. But when in that state, medicines are administered, I fear the cure is, by the ingenious theoretical practitioner, ascribed too often to their effects and not to the mildness of the disease; especially if some fashionable medicine has been prescribed; hence remedies undeservedly creep into practice, and, I fear, in serious cases, frequently supercede the use of those which have long stood the test of sound practical experience.

I pretend not to account for the source or origin of the scarlet fever and sore throat, but am well satisfied that the fomes morbi of the disease, however generated, lurk in the bowels. Under this conviction, I strictly enjoin them to be

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* These appearances of the liver and gall-bladder illustrate an opinion advanced in the former part of this work. No mention is made of the state of the vesica urinariæ. Parts of the diseased viscera were shewn me a few hours after dissection.

be well cleared in whatever stage or however violent the disease may be, when I first see the patient, if I suspect that such necessary treatment has not been before observed. The very fœtid smell of the evacuation, and the relief such evacuation invariably procures, strongly prove to me the necessity of purgatives; and I may add, from reiterated observations, that the longer they are delayed the more severe proves the disease. Many practitioners, alarmed at apparent debility, are deterred from exhibiting brisk cathartics, lest their operation should irrecoverably sink the patient. Such apprehensions would be justly founded if purgatives were administered without due discriminating attention to the age, constitution, and immediate state of the patient. But where such attention is paid, I have never seen any mischief to arise; on the contrary, the most salutary effects have taken place, merely from the bowels being relieved from the contained accumulated fœtid fæces, and hence every febrile symptom becomes milder, and the vital powers invigorated not debilitated. In the commencement of the disease, I generally prescribe preparations of senna, with or without, as circumstances indicate, the magnesia vitriol.; to these I add, in robust constitutions or even in weakly habits, if pains in the head or sickness in the stomach be urgent, a due proportion of antim. tart. By these means I effect a thorough clearance of the stomach and intestines; when that is accomplished I endeavour to bring on a moderate perspiration by a liberal use of the aq. amm. acet. to which I sometimes add the vin. antim. and sometimes the conf. damoc. I generally direct the feet to be immersed in warm water with one-eighth part of vinegar. This pediluvium I find to be a pleasant and effectual assistant in promoting perspiration and inducing sleep. A pursuance of this plan, interposing at intervals cathartics as occasion may require, will in a few days carry off the first febrile symptoms. The remaining debility becomes then the object of attention. To remove this, light preparations of bark, with a suitable diet, I find most effectual remedies.

The early exhibition of the bark, wine, &c. &c. in the scarlet fever and sore throat, I am persuaded has been, and continues to be, productive of very serious mischief. To such practice, I partly ascribe in many instances the severity, if not the mortality of the disease. Lassitude, prostration of stength, general pains in the limbs, quick pulse, parched skin with an appearing efflorescence, soreness of throat, with enlarged and ulcerated tonsils, denote the

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commenced disease. The practitioner, dreading the rapid progress of the angina maligna in debility and fatal putrefaction, immediately begins to prevent the devastation by plentifully throwing in bark, wine, and other cordials, preparing (or perhaps not) the bowels for their reception by a mild aperient or gentle enema; hence, the very remedies administered with the idea of invigorating the system to resist the much dreaded debility and putrefactive process, become, by retaining the putrid colluvies in the bowels, and irritating the general system, active agents in promoting the very evils they were intended to avert.

The vitriolic acid diluted with aq. dis. to which I add a sufficient quantity of syr. papav. errat. forms a gargle pleasant to the eye and taste. With this gargle I strenuously recommend the tonsils, fauces, and mouth to be kept clean, and that it should be used always immediately before nourishment is taken down.

I very rarely make use of any other external application, being long doubtful whether blisters, by the pain and trouble they occasion, compensate for their *supposed* good effect.

It often happens, that in children the gargle cannot be used, and the sloughs and foul mucus will accumulate to a very alarming degree. In such cases I have relieved the little patients from the stupor and suffocation, under which they appeared dying, by emetics, and have, by their timely use in some children, prevented the accumulation from taking place.

May 21, 1804. MEDICUS.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT has frequently occurred to me, that your excellent Journal may be still more enriched with useful information, and that without any deviation from the plan you have so successfully adopted. It is but too well known to practitioners, that there are some diseases which, though not considered incurable, are yet extremely fatal, and from the rare instances of recovery, it may be inferred that neither their nature, nor proper mode of treatment, has yet been ascertained; at least, it would be impossible to shew

shew that further advancement towards a cure might not be discovered. To collect into one point of view the experience and observations of those whose situations have given them frequent opportunities of attending to such diseases, would be a most desirable object.

No publication is better adapted for the conveyance of such communication to the public than the Medical Journal.

If this proposition meets your approbation, and that of your numerous correspondents, I would take the liberty of proposing, as the first subject of enquiry, Puerperal Fever, a disease fatal in the extreme, and not till lately much attended to. For myself, I can only say, that I have had frequent opportunities of observing it, and have known all the remedies which have been recommended, tried, but without success. Some of them even appeared to hasten the fatal catastrophe.

A case lately came under my care in which the alkalies, so much boasted of on the Continent, had a complete trial, without producing any change on the disease, and the patient died the ninth day.

I am, &c.

May 25, 1804. H.

Catalogue of such British Plants as have been found in any Shape serviceable to Man, whether in a medicinal, œconomial, culinary, or agricultural Point of View, together with an Account of the Uses which they have been made to anwser, and an accurate Botanical Description of each Plant.

[Continued from Vol. xi. pp. 526—534.]

8. Rubia. *R. tinctorum.—R. peregrina. R. Sylvestris aspera. R. T. Anglica.*

Ang. Madder, Dyer's madder, Wild madder.

Gen. Desc. Bloss. 1-petal; bell shaped; berry 2-seeded.

Spec. Desc. Leaves annual; *stem* prickly, 4-cornered, climbing. *Bloss.* dirty yellow. The *variety* of this plant, which is a native of England, having the *blossom 5 div., leaves smooth, shining, deciduous,* differs in several respects from any of the Linnean species. *See Withering Bot. Arr. Hedges in Devonshire; Isle of Wight, &c.* Bloss. June, July.

Use. Madder has been considered as *diuretic*, (which is

2 denied

denied by Dr. Cullen) *deobstruent*, and *detergent*, and is chiefly used in the *jaundice* (on the authority of Sydenham), *dropsy* and other diseases supposed to proceed from *visceral obstructions*, particularly those of the liver and kidneys; some modern authors have recommended it as an *emmenagogue* (Home, Clinical Exp.) and in *rickety* affections (Levret) which appears surpising, as brute animals, to which it was given, especially the younger, suffered considerable emaciation and prostration of strength from its effects. Dr. Home gave it as an emmenagogue, from a scruple to half a drachm of the powder, or two ounces of the decoction, three or four times a day. Dr. Cullen says, that "after several ineffectual trials, practitioners have entirely deserted its use." It has the peculiar property of tinging with a florid red colour, the milk, urine, cutaneous excretion, and even the bones of animals that have fed upon it; the bones are quickly affected, and the colouring matter extends through the whole osseous substance, so that if this root be intermitted and employed at proper intervals, the bones are found to be coloured in a correspondent number of concentric circles. Though the cultivation of madder in Britain seems to promise much advantage both to the planter and the nation, yet the great quantities of those roots used by the British dyers and callico-printers, has been for many years almost wholly the growth and export of Holland. But lately, by the laudable exertions of the *Soc. for the Encouragement of Arts, &c.* considerable quantities of English madder have been produced, and found as good at least, if not better than any imported. *See Transac. v. 1, p. 10.*—*Woodville.* For a full account of the cultivation of madder, see *Miller's Dict. in artic.*

9. PLANTAGO. *P. Major*; *P. vulgaris*; *P. latifolia-vulgaris.*

Ang. Way-bread, Common great plantain.

Gen. Desc. Bloss. 4-cleft, permanent, border broken back. cal. 4-cleft; stam. extremely long; caps. 2-celled, cut round, superior.

Spec. Desc. *Leaves* egg-shaped, smooth with 7 or 9 ribs. *Stalk* cylindrical, nearly 2-edged, 9 to 18 inches high. *Spike* tiled with florets, rather rough with short hairs. *Road sides, very common.* BLOSS. June, August.

Use. This plant, though omitted in the London, is retained in the Edinburgh Pharmacopœia, in which the leaves are mentioned as the pharmaceutical part of the plant;

plant: their qualities are said to be *refrigerant, attenuating, substyptic, and diuretic.* It was formerly reckoned amongst the most efficacious of vulnerary herbs, and by the peasants the green leaves are now commonly applied to cuts and other fresh wounds, and cutaneous sores; sometimes made into an ointment. Inwardly, they have been used in phthisical complaints, spitting of blood, and in various fluxes, both alvine and hæmorrhagic. The *seeds,* however, seem better adapted to relieve pulmonary diseases than the leaves, as they are extremely mucilaginous. The *roots* have been recommended for the cure of *tertian interemittents;* and, from the experience of Bergius, not undeservedly. An oz. or two of the expressed juice, or of a strong infusion of plantain, may be given for a dose; in agues, double that quantity, taken at the commencement of the fit.—*Woodville.* Plantain has been alleged to be a cure for the bite of a rattle snake, probably with little foundation, though it is one of the principal ingredients in the remedy of the Negro Cæsar, for which he was rewarded by the Assembly of S. Carolina.—*Duncan's New Edinb. Dispen.* Sheep, goats and swine eat it; horses and cows refuse it.

10. Cornus. *C. Sanguinea; C. fæmina.*

Ang. Dogberry tree. Hounds tree. Hounds berry. Prickwood. Prick timber. Gatten tree. Female Dogwood. Femalcornel.

Gen. Desc. Involucrum generally 4-leaved; petals 4, superior; drupa succulent, beneath, 2-celled, hard, solitary.

Spec. Desc. Stem 4 or 5 feet high, dark brown. *Branches* straight; shoots red; *leaves* egg-spear shaped with strong nerves, green on both sides; *tuft of flowers* flatted, in 5 divisions, these subdivided; *flowers* white. *Hedges and woods.* Bloss. June.

Use. The berries of this tree have a styptic quality, and are bitter to the taste. They serve also to dye purple. The wood is white and very hard and smooth, fit for the purposes of the turner. The leaves change to a blood red in autumn. Horses, sheep and goats eat it; cows and swine refuse it.

11. Parietaria. *P. officinalis. P. vulgaris. P. Dioscoridis.*

Ang. Pellitory of the Wall.

Gen. Desc. Female florets mixed with hermaphrodite

on

on the same branch; calyx 4-cleft; bloss. o; seed, 1, superior, lengthening.

Spec. Desc. *Leaves* spear-egg-shaped; *fruit-stalks* forked; *stems* reddish; *cup* 2-leaved; *bloss.* greenish white; *anthers,* if touched when ripe with a pin, burst, and emit their pollen with some considerable force; sometimes fly from the calyx—*Light.* *Old walls, rubbish, v. com.* Bloss. May—September

Use. This plant was formerly in repute as a medicine; but it does not seem to possess any remarkable qualities: it was accounted an *emollient,* though apparently without reason; and as a *diuretic* its character is better known; its expressed juice, sweetened with sugar, is said to have had a powerful effect in that way; and a decoction of this plant and *uva ursi* has been found of use in clearing the urinary passages. It is now, however, very seldom used, t ough retained in both Pharmacopeias.—*Woodville.* *The leaves of this plant strewed in granaries are said to destroy the corn-weevil.—*Lightfoot.* It contains so great a quantity of nitre, that in making an extract from it, the mass has taken fire. *Ditto, and Withering.*

12. Urtica. *U. dioica.* (*U. Urens, improperly.*)

Ang. Nettle, common nettle.

Gen. Desc. Flowers, male and female apart; calyx 4-leaved; bloss. o. Male, nectary in the centre, glass-shaped. Fem. cal. 2 opposite leafits very small. Summit hairy. Seed 1, egg-shaped, shining. Bloss. o.

Spec. Desc. M. and Fem. flowers on distinct plants; *leaves* opposite, heart-shaped; bunches in pairs. *Ditch banks, rubbish, v. comm.* Bloss. July.

Use. As a *styptic* this plant was formerly much used, and various hæmorrhagic affections have been mentioned, in which it has been successfully employed. It is said also to manifest a *diuretic* character, and to be useful in calculous complaints, scurvy, gout, jaundice, &c.; but it is now disregarded in medicine, and considered merely as an oleraceous plant, being found, when young, a good substitute for greens and other pot herbs.—*Woodville.* The young shoots in spring are boiled and eaten by the country people instead of cabbage greens.—*Lightfoot.* It was formerly used as an *astringent,* and was considered of service in all kinds of hæmorrhagies, but is now disregarded. A leaf

* Three ounces of the juice taken internally, or an external fomentation, have been found useful in the strangury.

leaf put upon the tongue and pressed against the roof of the mouth, is pretty efficacious in stopping a *bleeding at the nose*. In paralytic limbs, and other cases of torpor or lethargy, the fresh leaves have been used in the way of a rubifacient, producing considerable irritation and inflammation, (a practice termed *urtication*) and have been found of advantage in restoring excitement.—*Woodville.* The young shoots are gathered early in spring to boil with broth or gruel. The stalks may be dressed like flax or hemp for making cloth, paper, ropes, nets, &c. (a practice not uncommon in some parts of Russia and Siberia. *Falk.*) The leaves are cut to pieces to mix with the food of young turkeys, and other poultry; and, when a little withered, are eaten by cows.—*Withering.* It is said to be poisonous to frogs, for if a plant be thrown into a vessel where these animals are confined, they soon begin to swell, and in a few days perish.—*Woodville.* In Arran and other islands of Scotland, a rennet is made of a strong decoction of nettles, which, with a quart of salt to three pints, is bottled for use: and of this liquor a common spoonful will coagulate a large bowl of milk very readily and agreeably. The root boiled with alum will dye yarn of a yellow colour.—*Lightfoot.* The stings are very curious microscopic objects; they consist of an exceedingly fine-pointed tapering hollow substance, with a perforation at the point and a bag at the base. When the sting is pressed upon, it readily punctures the skin, and the same pressure forces up from the bag an acrimonious fluid, which instantly enters the wound and excites a burning inflammation, known to the experience of most people. *Hooke Discov. by Micros.* Cows, horses, sheep, goats and swine refuse the leaves; asses are fond of them, and cows will eat them in hay.

13. Viscum. *V. album.*

Ang. Misseltoe. Missel. White Misseltoe.

Gen. Desc. M. and Fem. flowers on different plants; bloss. o. M. cal. 4-div.; filaments, o; anthers fixed to the calyx. F. cal. 4 leaves, superior; style, o; berry, pulpy, 1-celled, 1-seeded. Seed, heart shaped.

Spec. Desc. Leaves spear-shaped, blunt. *Stem* forked. *Spike* axillary. *Flowers* greenish white. *Berries* white. The *root* insinuating its fibres into the woody substance of the tree on which it grows; a singular parasitical evergreen shrub. *On Apple trees chiefly; on many species of forest trees; rarely on oak; in Worcestershire and Herefordshire*

fordshire very common, rare in the Northern countries; in Ireland unknown. Bloss. May.

Use. The *Viscus quernus* had formerly great reputation for the cure of *Epilepsy*; and a case of that disease in which it proved remarkably successful, is mentioned by Boyle, *Usefulness of Nat. and Exp. Phil.* 174. It was some years afterwards strongly recommended in various *convulsive* disorders by Colbach, who has related several instances of its good effects: *Diss. concerning Misseltoe, &c.* He administered it in substance in doses of ½ drachm or 1 drachm of the wood or leaves; or an infusion of an ounce. This author was followed by others, who have borne testimony to its efficacy, not only in convulsive affections, but also in those complaints denominated *nervous*, in which it is supposed to act as a *tonic*. It has fallen however into general neglect, though it seems to be a remedy well deserving of notice.—*Woodville.* This plant was formerly in great repute as a remedy for *epileptic* and other complaints, but it is now much disregarded. From its berries and bark, bird-lime may be made. The berries are eaten by the Misseltoe-bird, the thrush, &c. and passing through them unchanged, adhere with their excrements to the branches of trees, where they vegetate, being washed by the rain to the underside of the branch, from which invariably their root springs. No art has yet made this plant take root in the earth: but the berries, when fully ripe, will adhere closely, if rubbed on the smooth bark of almost any tree, and produce plants the following winter. Sheep will eat greedily of this plant, and it is said to preserve them from the rot: in hard weather, it is often cut off the trees for them.—*Withering.*

14. Hippophae. *H. rhamnoides.*

Ang. Sea buckthorn. Common sallow-thorn.

Gen. Desc. M. and F. flowers on different plants. Bloss. o. M. cal. 1-leaf, 2-lobed. Fem. cal. 1 leaf, tubular-berry, superior, 1-celled. Seed, hard, shining.

Spec. Desc. *Leaves* strap-spear-shaped, very entire, green above, scaled, white underneath, mid-ribbery prominent. *Flowers* solitary, appear before the leaves. *M. fl.* below the leaf, between a branch and a bud; *Fem. fl.* in the bosom of the lowermost leaves, sitting. *Stem* 8 feet high; *branches* spreading straight, stiff, thorny at the ends. *Sea shore in sand.* Bloss. March—May.

Use. Of the berries, which are very acid with an austere vinous taste, the fishermen of the gulph of Bothnia

prepare a rob, that added to fresh fish, imparts a very grateful flavor. In sunny sandy situations, it is planted for hedges. *Linnè.* Horses, sheep and goats eat it; cows refuse it.

15. ALCHEMILLA. *A. vulgaris.*

Ang. Common Lady's mantle. Bear's-foot.

Gen. Desc. Cal. 8-cleft; bloss. 0; seed 1 or 2, inclosed by the calyx.

Spec. Desc. *Leaves* gashed, generally seven-lobed, serrated; a rib from the leaf-stalk along the middle of each lobe; *flowers* yellowish green, forming a kind of umbel, the *general involucrum* entirely, the *partial* only half-way surrounding the stalk. *Meadows and pastures.* BLOSSOM June—September.

Use. This whole plant is *astringent.* In the province of Smolandia in Gothland, a tincture is made of the leaves, which is given in spasmodic or convulsive diseases. —*Withering.* Horses, sheep, and goats eat it; cows are not fond of it; swine refuse it.

Tetrandria. Digynia.

16. BETULA. *B. alba.*

Ang. Birch tree. Birk.

Gen. Desc. Male and female flower separate, on the same plant; calyx one-leaf, three or five-cleft, blossom four-div. male cal. three-flowered; fem. cal. two-flowered. Seeds 2 or 3.

Spec. Desc. A tall tree. *Leaves* triangular spear-shaped, acute, smooth, doubly serrated. *Male catkin,* scales tipped with brown, smaller scales fixed to the centre. *Blossom* egg shaped, concave, green. *Woods, moist hedges.* BLOSS. April, May.

Use. If a hole be bored in the tree when the sap is rising in spring, a liquor well known for its saccharine qualities distils from it, which, properly fermented with the addition of sugar, makes an agreeable and wholesome wine. The leaves afford a *yellow dye.* The wood is firm, tough, and white; useful to the turner and the cooper; packing boxes and heels for women's shoes are made of it, and the knotty excrescences afford a beautiful varied wood. It affords excellent fuel, and makes the best charcoal; the soot is a good lamp black for making printer's ink. From the north of Lancashire and from Dungarvan, besoms made of its twigs are exported. The bark is extremely useful in the north of Europe; the Highlanders use it to

tan

tan leather, and make ropes of it; the outer rind they sometimes burn as candles, and it abounds so much with a resinous matter which is highly inflammable, that it is manufactured, sliced, and twisted together into torches; with the fragments interwoven the Swedish fishermen and Laplanders make shoes and baskets. Large thick expanded pieces, with a hole in the middle to fit the neck, they use as a surtout to keep off the rain. The Poles, Swedes, and Russians cover their houses with it in lieu of tiles; and over it the Norwegians lay turf three or four inches thick. The Americans make entire canoes of it. Before the invention of paper, it was used by the ancients for the purpose of writing on. In Kamschatka, hats and drinking cups are made of it. The celebrated *moxa*, or touch wood of the Laplanders, used by them as a cautery in the most acute disorders, is made of the yellow fungous excrescences of the woody part of this tree, which sometimes swell out between the fissures and crevices of it, resembling in substance the agaric. This tree is hurtful to pasturage, but it bears cropping well, and thrives in all kinds of soil, though best in shady places.—*Withering, Lightfoot, &c.* Horses, cows, sheep, and goats eat it; swine refuse it.

17. Betula. *B. alnus.*

Ang. Alder, owler, oller.

Gen. Desc. *As above.*

Spec. Desc. A tall tree. Leaves roundish, glutinous, clammy, serrated; veins underneath, woolly at the base; *fruit-stalks* branched, wedge-shaped, very blunt; *catkins* brown. *Near water, moist soil.* Bloss. Feb. March.

Use. The whole plant is *astringent.* The fresh gathered leaves, which are covered with a glutinous liquor, some people strew upon their floors to destroy fleas; the fleas are said to be entangled in that tenacious liquor, as birds are in bird-lime. Mr. Pennant says, that about Dundonald in the Highlands of Scotland, the boughs are used as manure; cut in the summer, spread over the fields, and left during the winter to rot; in March the undecayed parts are cleared away and the ground ploughed. The bark dyes a *red* colour, and, with copperas, a *black.* It is also used to dye *brown,* particularly thread, and for colours to be saddened by copperas. It is principally used by the fishermen to stain their nets. The catkins dye *green.* The wood is soft and brittle, but it endures a long time under water, and is therefore used for pipes, and for laying under the foundations of buildings situated on bogs. Turners use it for shoe-heels, ploughman's clogs, and other articles.

Grass grows well beneath the shade of alder; but if this tree be planted in a low meadow, the ground around it will become boggy; whereas round the ash, it becomes firm and dry.—*Withering.* Horses, cows, sheep, and goats eat it; swine refuse it.

18. BETULA. *B. nana.*

Ang. Dwarf birch tree.

Gen. Desc. *As above.*

Spec. Desc. *Leaves* circular, scolloped; low shrub, upright. *Trunk* hard, stiff. Bark brown, roughish. Branches expanding, straight, scattered, tapering, woolly, gummy at the base. Catkins half an inch long. *On mountains and wet heaths, bogs.* BLOSS. May.

Use. The leaves afford a finer *yellow* dye than that of the betula alba, or common birch. This shrub supplies the Laplander, in the summer, when he lives in the mountains, with fuel for the fires that he is obliged constantly to keep in his hut to defend him from the gnats; and, covered with the skin of the rein-deer, it forms his bed.—*Linnè.*

19. MYRICA. *M. gale.*

Ang. Sweet gale, goule, sweet willow, Dutch myrtle.

Gen. Desc. Male and female fl. on different plants, in catkins. Calyx 2 leaves; blossom 0. Female drupa one-celled, superior. Seed 1.

Spec. Desc. *Leaves* spear-shaped, convoluted, sprinkled with resinous points, serrated towards the end, on leaf stalks. *Stem* shrub like, smooth rust coloured, with white dots. *Flower-buds* above the leaf-buds at the ends of the branches, which as soon as the fructification is completed, die, the leaf-buds on sides shooting out and the stem becoming compound. *Buds* composed of nine leafy shining scales. *Flowers* appear before the leaves. *Female spike* oblong, five rows, in each five *berries*, which are thickish, roundish, angular, three shallow clefts, to each of which a small tooth is fixed sprinkled with golden resinous dots. *On bogs in gravelly soil, generally in large quantities.* BLOSS. May.

Use. The leaves have a bitter taste and an agreeable odour; in the Highlands and Hebrides, an infusion or tea made of them, is given to children to destroy *worms.*—*Lightfoot.* The Welch also use it as a *vermifuge* both in powder and infusion, and also applied externally to the abdomen. They lay branches of it under their beds to keep off fleas and moths, and they use it for dying wool yellow.—*Penn.* The Swedes use it, gathered in autumn, to dye

dye their yarn yellow, and sometimes employ a strong decoction of it to kill *bugs* and *lice,* and to cure the *itch.*—*Linnè.* It was formerly used by northern nations, and is still in the western isles and Highlands of Scotland, instead of hops; but unless it be boiled a long time, it is apt to occasion head-aches. The cones, (or catkins) boiled in water, throw up a watery scum capable of being made into candles, similar to those made by the Americans from another species of this plant, the *M. cerifera.* It is used to *tan* calf-skins. Its essential oil rises in distillation. Sailors are fond of besoms made of it for sweeping their ships.—*Lightfoot, Withering.* Linnè suspects from the smell, that camphor might be prepared from this plant, Horses and goats eat it; cows and sheep refuse it.

20. Cuscula. *C. Europœa. C. epurtica. C. eperica.*
Ang. Dodder.

Gen. Desc. Calyx four or five-cleft; blossom one petal; caps. two-celled, cut round. Seeds in pairs.

Spec. Desc. Flowers sitting, four-cleft, whitish. *Leaves* 0. A paralytical plant without seed-lobes. *In hops, nettles, heath, &c.* Bloss. July, August.

Use. This is a very curious and singular plant, which will not grow in the ground. *See Bot. Acc. of it.* It was formerly celebrated as a *cathartic,* but is a very languid one, and now out of use.—*Hill.*

Tetandria Tryginia.

21. Buxus. *B. sempervirens. B. aborescens.*
Ang. Box.

Gen. Desc. M. and fem. fl. on the same, or on different plants. M. calyx three-leaved; bloss. two-pet. germen, a rudiment. Fem. calyx four-leaved; bloss. three-pet. caps. three-celled, three-beaked. Seeds 2.

Spec. Desc. M. and fem. fl. on the same plant. *Leaves* oval, thick, glossy. *Blossoms* greenish white or yellow. Fruit a dry capsule. *Woods.* Bloss. April.

Use. An empyreumatic oil, distilled from the shavings of the wood, is often used as a topical application for the *piles,* and seldom fails to procure ease; it will frequently cure the *tooth-ache,* and it has been given internally in *epilepsies.* The leaves powdered destroy *worms.* The wood is very hard, smooth, and a fine yellow, and not being apt to warp is well adapted for the use of the turner; it is made into combs, mathematical instruments, knife handles, button moulds, &c. In the south of Europe it is cultivated in pots, like myrtle with us.—*Withering.*

[To be continued.]

On the present State of our Knowledge of Opium.

By A. F. Gehlen, *of Berlin.*

Opium, a substance so long known, of such great importance in medicine, and such extensive practical utility, has been frequently examined, but by no means so thoroughly, as not to leave many doubts respecting its nature and origin. It is even not as yet ascertained, whether good opium be obtained by incision of the capsules of the poppy, as Mr. Kerr relates, in form of an extilled juice, or whether it be prepared by expressing the ripe poppy heads, by boiling them, and evaporating the juice. For the probability of the first method being employed in order to obtain this substance, it is alleged, that it contains albuminous matter, and that its aqueous extract is perfectly soluble in alcohol, which would not be the case, were it prepared in the latter way; no albuminous matter would then be found in it; on the contrary, a great quantity of mucilage, which the heads of the poppy, on being boiled, yield in a considerable proportion, and the presence of which must necessarily prevent the perfect solution of the aqueous extract in alcohol. However plausible these arguments may appear, they are not sufficient for removing all doubts, because if the proceeding in evaporating the expressed juice of the poppy heads were the same as that employed in our laboratories for the preparation of the inspissated juices of hyosciamus, cicuta, and other narcotic and acrimonious plants, a portion of albuminous matter will, notwithstanding, be contained in it. Against the perfect solution of the aqueous extract, as an argument of its containing no mucilage, it may be suggested, that the proximate constituents of vegetables, as long as they are mixed with one another, are acted upon in a quite different way if treated with them separately. Thus Mr. Buchholz found in 500 grains of select opium, 150 grains of gum, although the solution of the aqueous extract, mixed with an equal quantity of alcohol, appeared quite clear and transparent.

The interesting experiments of Cit. Dubuc render the preparation of opium, as related by Mr. Kerr, still more doubtful. He maintains, that at least the fourth part of opium consists of impurities, which, on examination, were found to be particles of the stem, leaves, capsules, and seeds of the poppy, most minutely divided; and it is to this admixture, that he ascribes the peculiar narcotic

odour

odour of that substance. He farther remarks, that this odour is very volatile, and often no more, or in a far less degree perceptible on the surface of opium, while it still remains strong and nauseous in the internal tough part; whence he concludes, that this volatile particle is merely accidental; an opinion which he endeavours to confirm by the following experiments.

1. On drying fresh and tough opium by a heat of 40—50° Reaumur till it becomes pulverisable, it entirely loses that stupifying odour, retaining that of purified opium or laudanum, from which it only differs by the heterogeneous particles which it contains. When these volatile particles, which are disengaged during the exposure of opium to the heat, are collected by a proper apparatus, they will for the most part be condensated to a clear liquor, the colour of which becomes a few days after straw yellow; one part of it, however, retains the form of gas, which is never perfectly miscible with water. Both give the odour of fresh opium, but in such a high degree, that animals brought into this mixture are immediately suffocated. Mr. Dubuc mentions here, that he has several times prepared an extract from the white poppy heads, at different times of their growth, without ever obtaining a substance of the true odour of opium, or laudanum; but he observed, that volatile-smelling particles were disengaged from a quantity of leaves of poppy, which being extremely similar to the substance obtained in the former experiment, induced him to make the following.

2. Leaves of the white poppy were squeezed and triturated in a stone mortar, by which they yielded a great quantity of a milky brownish juice which had a bitterish taste. On exposing it to the air, at a temperature of 10—12° Reaum. it had puffed in one day considerably, and gave at the same time a strong narcotic smell, similar to that which is exhaled by fresh opium. On the fourth day the exhalation had increased to such a degree, that no person could approach it without a violent head-ach On the fifth day the vessel was exposed for about twelve hours to the action of the sun, and the juice frequently stirred. In a few hours the stupifying smell gradually diminished, and was followed by another much resembling that of azotic gas. The juice, together with the vegetable particles, acquired a darker colour, probably owing to the azote disengaging itself, which, united to the odorous principle arising from the mass, constitutes the abovementioned peculiar smell.

 3. After

3. After having made this observation on the origin of the peculiar smell of opium, he took twelve pounds of poppy, nearly of their full growth, and treated them as in the foregoing experiment, but without exposing them to the sun. Two days after the whole mass began to ferment, and the narcotic odour to be disengaged, and two days after it became still more perceptible. He now expressed the juice, and having filtrated it, he evaporated it by a gentle heat to the consistency of an extract, but he did not succeed in obtaining true opium, because the juice, as it was thickening, gradually lost the narcotic smell, and only retained that of a scentless plant.

4. He was equally unsuccessful by inspissating the juice of poppy on flat vessels by the heat of the sun.

5. He gently evaporated the juice of the young heads of poppy, partly taken from the plant in flower, to half its quantity, in hopes, by the mass being more concentrated, of obtaining a substance retaining the odorous particles. The juice thus far inspissated, began to ferment somewhat later, than the former, and on the tenth day had received the above-mentioned smell; but on being evaporated, the extract showed no difference from that obtained by the foregoing experiments. Half of the juice was preserved for future experiments.

6. Thirteen ounces of poppy heads, full grown, but still green, and four ounces of leaves and of the stem, were squeezed and perfectly triturated into a thick glutinous mass. On being exposed to the contact of air, it soon passed into fermentation, and after four days it had the smell of opium. Part of it being evaporated at a temperature of about 40° R. retained a weak smell of laudanum, and much resembled common opium. Mr. Dubuc relates here some experiments he made for obtaining opium by making incisions into the peduncle and the inferior part of the capsules of poppy. A yellowish, almost scentless, but very bitter juice extilled, which received a darker colour by the contact of the air; its taste remained the same, but the smell soon became narcotic, and on being exposed to the sun it dried, retaining only the smell of laudanum. Mr. Dubuc observed two species of poppy, the heads of one of which were exactly globular, while the others were rather oblong. The former yielded opium without incisions, as it issued from two, three, or four sutures, that could be discovered on the peduncle; and after it had thickened, it received the colour and smell of laudanum. It could be collected in small pieces of about four grains each.

Mr.

Mr. Dubuc took two grains of this substance, which produced a long and quiet sleep.

7. He prepared the extract from a considerable quantity of poppy by decoction, which being saturated, became milky on cooling, without having the least smell of opium. He then evaporated it till it could be pulverised.

8. One part of this dry extract was mixed with as much of the juice preserved from the 5th experiment, as was sufficient to give it the consistency of common opium, and the whole mixture resembled laudanum in colour, smell, and taste.

9. The rest of the last mentioned extract was likewise mixed with as much of the residuum of the 6th experiment, as was required to give it the consistency of opium. Three days after, the preparation of this substance became so very similar to opium, that it might have been taken for good opium.

Although the results of these experiments are by no means decisive, yet it appears from them, that a similar method of preparing opium may be adopted in oriental countries, viz. by inspissating the expressed juice of the heads of poppy, and mixing it with the triturated and fermenting mass of the whole plant; because the opium extilling from the incisions of the capsules did not retain the strong narcotic smell of common opium. It is not unlikely that in preparing opium, the expressed juice is heated, and the green albuminous matter which is separated during that process, is exposed to the air, till it has received the narcotic smell, when it is mixed with the clear inspissated juice, formed into cakes, and wrapped in the leaves of the poppy. These experiments of Mr. Dubuc are confirmed by similar ones made by Mr. Kuehn, apothecary at Arnstadt.

The same uncertainty which takes place in the manner of preparing opium, also obtains with respect to our knowledge of its constituent particles. In the analysis of this substance, the different sorts ought to be attended to, and the results of their examination compared with each other, which would at the same time throw light on the whole composition of this substance, and account for the results of former analyses; particularly, if regard was had to the methods employed by different chemists in the chemical examination. The analysis which Mr. Buchholz has undertaken with opium is, in this respect, not quite satisfactory, though it is otherwise very accurate and excellent. The chemical examination of that substance, which has

been

been related by former chemists, may always serve to illustrate several points that are not yet well understood; on which account I shall here give the results of the proceedings undertaken by different chemists with opium, whereby the reader will be enabled to judge which points, in the knowledge of the chemical composition of that substance, requires still to be illustrated. The sensible quality which first attracts our notice on examining opium, consists in its narcotic smell. The constituent part which produces this smell is of a volatile nature, imparting itself both to water and alcohol, when these are distilled with opium. It seems not to possess the nature of essential oils; at least, Mr. Buchholz could not obtain any trace of it by distilling it with water; but the quantity with which he operated in his experiments consisted only of 500 grains, and was consequently too small to render his results quite certain. He administered two ounces of the concentrated distilled water of opium to a dog, on which it produced no deleterious effects; whence he concludes, that the efficacious parts of opium do not depend on those volatile particles, and that consequently opium may be boiled with its dissolvents without any fear of losing its efficacious particles. These conclusions, however, seem not to be sufficiently confirmed by that experiment, as it is known that dogs will bear a great dose of opium; especially, as the dog on which Mr. B. made his experiments was diseased, which certainly had some influence on the operation of the opium.

Mr. Dubuc mentions in one of his experiments, that an atmosphere impregnated with the exhalations of opium is deleterious to animals. It is, however, known that opium is not deprived of its efficacy by the loss of the narcotic smell, though it is not yet ascertained to which part of opium the vis narcotica adheres. Neumann and Hoffmann ascribe it to a particular constituent of opium; an opinion which has not much been regarded in modern times. This substance is said to be of an oily but not of a volatile nature, to rise in form of a fat, tough, and strongly smelling scum to the top of the liquor, if opium be disolved in water by infusion, digestion, or gentle decoction, and to possess the narcotic properties in a very high degree. Dogs that could take more than one drachm of opium, without any noxious effect, were killed by a few grains of that substance. From a pound of opium two or three drachms are said to be obtained. It communicates its smell and narcotic power to water distilled with it, but it is not volatilized.

tilized. Mr. Josse is of a different opinion on this subject. He maintains that the narcotic and excitant qualities of opium are contained in the glutinous matter of opium. In order to obtain this substance, he treated opium, divided into pieces of one ounce weight with water of 30—36° R. in the same manner as is done to obtain the gluten from the flower of wheat; by which proceeding the surface of opium was softened and covered with a gluey fibrous matter. After all the soluble parts were dissolved in water by continued kneading, the gluten remained as an elastic dark brown substance, of such a penetrating smell and taste of opium, that the smell of it alone would excite vomiting. Exposed to the air it dries up and loses its elasticity, resembling burned earth, but retains its strong smell of opium. If kept moist, it passes into putrefaction, spreading a great stench. Mr. Josse obtained from one pound of opium 6 ½ ounces of this substance, which, when dry, were about five ounces and some drachms. Exposed to dry distillation, it shews no difference from the glue of flour, or any other substance that contains azote. Digested with 4 parts of alcohol it imparts to the liquor a brown colour and a disagreeable smell; but the pieces of this substance used for digestion neither changed their form nor size, though they lost the eighth part of their weight, which, on being distilled, remains as a scentless very bitter resin, the alcohol itself passing over with the narcotic smell with which it was impregnated on being digested with opium. The above mentioned glutinous substance, thrown into hot oil, does not change its colour when it is dried; but when added to the oil in its fresh state it becomes green. It is said to be soluble in vinegar and other acid vegetable liquors, and to be precipitated by alkalis in flakes which have the smell of opium.

From these observations, Mr. Josse concludes, that opium is a preparation of the juice of poppy; that the acid corrigentia of opium are not capable of diminishing the much dreaded narcotic property, but, on the contrary, that the narcotic effect is increased by them, as being dissolvents of the glutinous substance; that Spanish wine is best adapted for dissolving the extractive parts of opium, as it does not act on the glutinous matter. Lastly, he adds, that from the common great poppy an extract may be prepared, resembling in its efficacy, as well as in other properties, true opium. It is, however, probable, that what Mr. Josse calls gluten, is nothing but the albuminous matter, which is separated by boiling from the expressed

 vegetable

vegetable juices, as he compares it with a similar substance, contained in the extract. cicut. when prepared after Baron Stork's method.

[To be continued.]

Dr. Walker's Remarks on Mr. Goldson's Pamphlet.

(Continued from Vol. xi. p. 505—508.)

THE insertion in your last Number of the Remarks, which I most hastily made on the cases of small-pox after supposed vaccination, require on my part a farther prosecution of the subject of Goldson's pamphlet, to which I now go to give an hour or two more.

Pages 36 to 40 exhibit two cases of small-pox produced thirteen and fourteen months after *(supposed)* "Vaccination by Mr. Weymouth." This gentleman had matter from the Central House on the 16th ult. *Allons.*

Page 41. "No difference in the appearance of the arm or the symptoms of Clark from any of the five marines." Then they will be all liable to take the small-pox as Clark and Sarah Smith did, if not re-inoculated.

Page 46. "It is not to be presumed that a public board, directing experiments to be made on the subject in an infirmary under their controul, would be so inattentive as to send such (matter) as was improper for that purpose. There could be no opportunity of its being decomposed, or deteriorated, while in possession of Mr. Rickman, as he used it on the same day he received it." But a stage coachman carrying in his pocket the little packet of guardian matter, getting off in the night to take his beer, and 'drawing up' to the fire of the inn to warm himself well before he again mounted his box, could decompose it. Matter, I believe from Golden Square, sealed up in great form, with the impression of a cow, I have known to prove effete; it was in the county of Surry. Matter packed with equal neatness, but heated in applying sealing wax, I have seen completely destroyed; it was on the Mediterranean between Gibraltar and Minorca.

Page 47. "From Langley (a marine) matter was taken for me, which I used on two children of Major Noel; and from these I vaccinated others in succession. They both resisted variolous inoculation six months afterwards." It sometimes happens to myself that I don't succeed in producing

ducing the vaccine vesicle by the first puncture. Have the children, in such case, *resisted* the inoculation? It is perhaps through my extreme tenderness to them, scarcely letting them feel the lancet, or through some untoward application of the instrument, rather than from any sort of insusceptibility in the subject, that I have not succeeded. I have also failed for a time, at least in one instance, through the system being previously occupied with some other morbid affection. I can shew in this metropolis pretty permanent marks, though perhaps not indelible like the cicatrix or eschar invariably following vacciola, as well as *other* solutions of integument, produced on the skin by my vain attempts from week to week to vacciolate the subject. The child had extensive eruption both on the forehead and neck, the herpetic character of which manifested itself at the place of application of the lancet, and forbade the entrance of the vaccine virus into the system, while in the struggle, if I may so express it, *something like*, a *very little* like, cow-pox was produced. I was obliged to assure the mother that her child was not, and could not then be, protected. In less than three months after this I succeeded completely in vacciolating the child, and assured her that it was impervious to every attack of small-pox. The subject, as appears from the register, was Robert Hughes, No. 12, St. Paul's Chain, a child half a year old.

I have so often seen troublesome eruptions in children swept away by the vacciolous inoculation (the genuine vesicle being first produced from which there could be no objection to inoculate, but which in its last stages exhibited very exactly the light coloured scab of the previous eruption, instead of the dark one of uninterrupted vacciola) that I lately inoculated a child (completely vacciolated last year at the age of two months) because of its being very sore behind the ears. The mother in a week shewed her child much relieved, and having so specious a pock on its arm that a medical man so particular in the choice of his matter, that he waited at the Central House to see the subject it should be taken from, on arrival of this child preferred the specious pock, till he was informed of its history, when he contented himself with matter from one having more appearance of inflammation about it than was desirable. The subject was a child ten months old, Charles Good, No. 22, Lambeth Hill, Doctors' Commons.

Page 49. "Langley was found to resist variolous inoculation, &c." Suppose all this to be perfectly correct; it does

does not follow that he resisted because of his having been previously inoculated. In Marmorice Harbour, on my endeavouring to set before some hesitating sailors, in the expedition to Egypt, the advantages of the vacciolous inoculation, some of them said they had often been exposed to small-pox without taking it. "So have I," said an old seaman, "till I was older than any of you. I have even helped in the hospital to carry out those that died of the small-pox, and escaped. But it caught me at last; you see how it has marked me, and I was half a year in recovering my strength after it." What a confirming case would this have been of W. G's conjectures, if the sailor had ever been previously, spuriously, vacciolated!

Does W. G. suppose that the Variolous Inoculation has never been incomplete? never spuriously conducted? The expedition, in Marmorice harbour, exhibited a motley assemblage from various nations; most of the numerous European languages were spoken in it; the Turkish, Arabic, &c. The errand of a figure, without uniform, daily setting out from the Admiral's ship, to visit the different vessels of the fleet, excited some attention.* I had instances mentioned to me of the Small-pox inoculation having failed to yield any protection in different quarters; but let me substantiate the general assertion by a particular statement. The lieutenant-colonel (Stuart) of the 42d (Highland) regiment, whose name appeared as an authority in the late dispute respecting the capture of the standard of the *Invincibles* before Alexandria, is very much marked with the small-pox. He told me he was inoculated when a boy, was considered to have gone thro' the disease; but afterwards took it in the natural way.

I am apprehensive that it may be supposed, from my holding the office of Resident Inoculator to the Royal Jennerian Society, that my remarks come from the Society itself, which the author has with such want of accuracy approached, by addressing his pamphlet "To the Directors of the *Vaccine Institution.*" The proceedings of their Medical Council, read and approved at their last Quarterly Court, shew that they do not consider the pamphlet of W. G. in the same serious light that I do.

"At a Meeting of the Medical Council, May 15, 1804, Mr.

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* Dr. Walker being at Malta when the expedition under Sir Ralph Abercrombie and Lord Keith arrived there, he consented to accompany it, the Small-pox having got into the fleet and being very fatal.

Mr. Ring in the chair, the following message was sent to the Board of Directors.

"The Medical Council having taken Mr. Goldson's Pamphlet into consideration, inform the Board of Directors, that they are of opinion it does not appear to require any particular notice from this Society."

Would it not be eligible and truly respectable for medical men in every quarter to form Jennerian Societies? It would distinctly mark the liberality and disinterestedness which so many of them, advocates for the new practice, already exercise in their profession. To do away every jealousy, let the oldest member of every association be the President; the youngest the Secretary. It belongs to them, in reality, the forming of the public opinion on medical affairs. Consider this ye guardians of public health! Ye have no idea of the exertions that are made by the gainsayers of the discovery, which, said an intelligent Greek to me in Egypt, is the '*Glory of your Nation*,' is the consolation of the world. Ye have no conception of the pains that are taken to spread terror and dismay among families, even by the gratuitous diffusion of the specious statements of the pamphlet under notice. Why did not the author, holding the copyright in his own hands, to prevent distraction among the unsuspecting multitudes, endeavour chiefly to confine his 'facts and observations' to your attention? Then they might have been examined "with that calmness and moderation which should ever accompany philosophical research." Had the manuscript been addressed to the Royal Jennerian Society, they would probably have considered all its errors as the exuberant effusions of an ingenuous though biassed mind, and paid a respectful attention to its mistaken and well meaning author. But no! it is committed, with all its faults, to the perusal of the wide world, to bewilder those who waver, to realarm those who were at length at rest. Hence the fond parents, unable to distinguish, may look on their blooming offspring, heretofore eyed with rapturous delight, in the saddest expectations, the most gloomy solicitude; and the lustre of the eye, which would beam on them consolation and joy, they may, by a tormenting anticipation, see closed up in endless night. But, surely, medical men will every where endeavour to dash the poison from the cup, and do justice to humanity, in preventing the weaker judgment of the credulous from being imposed on. Already the one or two remaining opposers of the new practice, in the profession, have failed in their attempts to produce small-pox af-

ter-vacciolation, and the wealth and influence employed in giving gratuitous diffusion to the pernicious pamphlet will be deprived of their baneful and baleful effect while medical men remain unperverted. To them, I repeat it, belongs the forming of the public mind on medical affairs. The Royal Jennerian Society may long in vain continue to look towards public men, for *active* co-operation; they are all too much engaged with political affairs. If medical men, as was very early suggested by the President (Duke of Bedford) would come forward and co-operate with the Society, the great object would be attained, THE EXTERMINATION OF THE SMALL-POX.

I am, respectfully,

Salisbury Square, 14, *vj.* 1804. JOHN WALKER.

P. S. I have just been called upon by the gentleman that had the matter "for Dr. Waller, of Portsmouth," who wishes to know what were his exact words on application; and he has written for answer, that, "the exact words were a simple application for matter, with the remark that that which they have, *does not produce the desired effect.*" In the mean time, applications from that quarter are continued at the Central House, as appears from the register.

"Mr. William Postlethwaite, Chichester."

"J. Wilkinson, Portsmouth."

"John Griffin, Minister of Orange Street Chapel, Portsea."

"William Munday, Chichester."

"Mr. Phillipson, Chichester."

The applicants from Portsmouth, like the thousands throughout the empire, as well as in both hemispheres, or on both sides of the Atlantic, and round the Capes Horn, Good Hope, and Van Diemen, are, the majority, unknown to me. These, with those whom I am personally acquainted with, must excuse my exhibition of their names. The great cause of humanity requires it; and when the ephemeral alarm from the pamphlet shall be quieted, the families they attend must recognise their seasonable vigilance, and, as I suppose, their *acumen* too, superior to that of the author, who with profession of honourable motives has, *perhaps unwittingly,* attempted a work with which that of Eratostratus the Ephesian, on the night of the birth of the founder of Alexandria, dwindles to a point without dimension in the comparison.

Will you now inform medical gentlemen, every where, through your extensively circulated Journal, that on application

plication for vaccine ichor, they may save themselves the expence and trouble of paying the postage, by directing, "To the Secretary of the Royal Jennerian Society, Salisbury Square."

The increasing numbers of patients at the Central House, will, I hope, enable me to continue to supply every applicant. The Post Office has already liberally granted the privilege of sending it free throughout the empire; and it only requires some arrangements on the part of the Society to enable medical men to receive it without expence to themselves, and to co-operate in the great object of exterminating the Small-pox.

To the Editors of the Medical and Physical Journal.

Gentlemen,

THE Pamphlet, which is the subject of the Remarks at p. 505 of your last Journal, contains cases of small-pox at the distance of *three years* from vaccination, happening in subjects, who, during the intermediate space, had been submitted to the strongest influence of variolous infection. It is addressed to the Directors of the Vaccine Institution, requesting them, in terms I believe perfectly respectful, and with that degree of moderation which becomes the subject, to turn their attention to it, and seriously to investigate, what I am forcibly led to conceive a defect, hitherto not *publicly* noticed in Vaccination. Prior to its publication, I sent a letter addressed to the Secretary, at No. 14, Salisbury Square, accompanied with a copy of the publication, requesting that it might be delivered to the Directors in my name, as a mark of my attention. I presume the letter was delivered, although I never received any answer to it. But Dr. Walker, who is the author of the Remarks I allude to, can inform you, as he resides, I believe, at the house where the letter was left.

In those Remarks, although on a subject so important to the interests of society, he has been pleased, at first sight, to deem them cases of spurious cow-pox, without adverting to their resistance of small-pox, so evidently during a limited period; a feature so prominent as to distinguish them from any *hitherto* brought before the public. These remarks are likewise conveyed in language so illi-

beral, and are replete with so many misrepresentations, which must be deemed wilful, that I should have suffered them to have passed unnoticed, had not the author been principal Vaccinator, under the Directors of an Institution, to whom the Pamphlet was respectfully addressed. From their characters however as gentlemen, I am confident, it was sent to your Journal without their knowledge.

A postscript is added to the Remarks, asserting, that, "Dr. Waller of Portsmouth had just made an application at the Central House of the Royal Jennerian Society, for vaccine matter, with the remark, that that which they have there cannot be depended on; and on that account he sends to the Society, where he reckons upon being furnished with the genuine."

If Dr. Waller ever made such an application, it must be deemed extremely illiberal, not to me alone, but to the whole of the profession in the vicinity. This, however, he publicly denies, and says, he never had any correspondence with Dr. Walker, and never gave any authority for such an assertion.

To men of *real* humanity, and to lovers of the truth, I am confident the importance of the subject will be an inducement to investigate it. With respect to them, I need not, but with regard to Dr. Walker, I must request you will insert the concluding sentence of the pamphlet: "It is far from my wish to provoke controversy; I only ask for further investigation. Vaccine Inoculation must stand by its own merits, or fall from its own defects. To suffer zeal for the discovery to shut their eyes to conviction, and, by deeming every failure spurious, to conceal it, is beneath the dignity of the profession. If it does not ultimately prove a permanent prophylactic, the consequence must be, that the small-pox, at some future period, will become a greater scourge to the world than ever, independent of the distress of mens' minds from their being left in such a dreadful state of anxiety. Let me beg therefore, that in conducting this investigation, the words of Dr. Jenner may be had in remembrance. "I again repeat my earnest hope that it may be conducted with that calmness and moderation which should ever accompany a philosophical research."

I am, &c.

W. GOLDSON.

Portsea, June 4, 1804.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Beg leave to communicate the following observations on the case of fatal diarrhœa which appeared in your Medical and Physical Journal of last month, signed Academicus.

It must be allowed, that medical men who are in the habits of visiting patients, have a peculiar advantage over those who reside at a distance, in discovering the cause and manner of removing every disease; and had not the symptoms in the present case been so well defined, and such as have frequently occurred to me, I should not have ventured to submit my remarks on the subject.

It is very well known that during the period of teething, children are subject to such symptoms as affected the child in question. Various other causes may also occasion similar complaints, and the application of cold may produce them, or aggravate the indisposition.

In the present instance, pudding was generally allowed, and a little good Port wine occasionally, (doubtless from the best intention); but as the former generally contains the white of eggs, and as the latter, however good in quality, seems to be by no means adapted for assisting the digestion of an infant, I conclude both had a tendency to disturb the digestive process, especially as his diet was plentiful; and possibly the child might have been too often permitted to make use of improper things, which parents, from affection, suppose he might be indulged in with impunity.

I think it very difficult for any man to say what was the real cause of the child's illness; I generally attribute such complaints to the presence of indigested sordes and accumulation of slime, which occasion symptoms similar to worms, such as rubbing the nose, &c.; an interruption or regurgitation of bile are also frequently produced by the same cause, and similar symptoms follow; but dissection would have been the most probable means of satisfying the anxious enquirer. Having had a great number of children under my own eye, affected with very similar complaints, of different ages, from three months to three years and older, perhaps Academicus may not think it amiss, if I mention the mode of cure which I have generally proved to be successful, though he did not require it.

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An emetic was generally given first, then calomel with resin of jalap, scammony or rhubarb; these were repeated as often as the case required, sometimes daily, though the evacuations might be much in quantity, especially if other symptoms did not abate, if the stools continued greenish, or corrupt. When parents, from timidity, would not consent to have an emetic given in season, I have frequently found it indispensable, though alvine excretions were copious and the stomach not accustomed to urge; small doses of prepared chalk and tinct. opii camph. have sometimes been needful to restrain excessive action of the bowels and to alleviate pain, and sometimes mild glysters have removed hard balls of fæculent matter, by which means the cough and oppression proceeding from the state of the stomach and bowels have abated, the natural secretions have been restored, the yellowness sometimes attendant, removed, and the usual vigour and rosy appearance regained, though their desponding parents supposed them to be almost exhausted by a consumption of a very different nature. Such disorders sometimes occur to children while under inoculation; and if fatal, the deaths of the patients are improperly attributed to inoculation.

I take this opportunity to mention, that I inoculated with the same cow-pox virus three children in April last, about the same time, in different parishes; the first had a very distinct chicken-pox during the second week from the time of inoculation, it being prevalent at the time, and the two others, during the second week from inoculation, had the measles with their usual symptoms, the contagion at the time being very diffusive; the inoculated part on the arms of the children had also the usual appearance and degree of inflammation; neither of the children were dangerously ill.

Hayle, Cornwall, I am, &c.
June 11, 1804. R. O. MILLETT, jun.

On the beneficial Effects resulting from Mercurial Inunctions in Typhus, illustrated by the Case of a Private in the 21st Regiment of Dragoons, attended by Mr. Cuming, *in Romsey.*

In the statement of this case, it shall not be so much my business to enter into the minutiæ of detail, as to give you the outlines of the patient's symptoms and my practice

practice

tice; for, in general, the monotonous recital of a diary is extremely dry and irksome.

On the 19th of May, I was desired to visit —— Benson, who I found in a state of pyrexia, accompanied with dysentery; his dejections were frequent and bloody, and his countenance remarkably sallow. I prescribed gr. x. pulv. ipecac. comp. 3tia. q. h. sumend. but finding the opium contained in this medicine, insufficient to procure him repose, he took tinct. opii gtt. 40 horâ decubitûs. In the morning of the 20th, I found him rather better; he had been less disturbed during the night than he had been for some time. It is necessary to remark, that he had been long subject to the complaint, and that now it might properly be denominated chronic dysentery. These medicines were continued, and with the happiest effects, in as much as related to the alvine discharge, which began to assume a natural appearance, without the smallest mixture of blood; though there was not any remission of fever, which from the first belonged to the typhoid type, his pulse being often weak and tremulous, tongue nearly covered with a brown fur, the sensorium greatly affected, from the state of amentia I generally observed him to labour under. On the 21st I applied a blister between his shoulders, which roused him a little, and on the 22d I prescribed the volatile alkali, with tinct. lavend. comp. and a bolus at bed time c. pulv. ipec. comp. gr. x. These remedies were continued without any apparent benefit until the 28th. The corona capitis had been shaved, and cold applications of vinegar and water were constantly used, but did not operate very powerfully in restoring lost energy, yet I am persuaded they were useful. I also had the patient taken out of bed, and tried the effect of cold affusions, which I believe would have been attended with considerable benefit, if they had been persevered in; but he was so circumstanced, in point of lodging, as to render this plan extremely inconvenient. I therefore had recourse to mercurial inunctions, and by way of exciting their effects more speedily, administered calomel gr. ij. pulv. antimonial. gr. vj. opii gr. ij. cons. ros. q. s. ft. bol. No. iij. capt. j. ter de die.

These remedies were continued till the 6th of June before their action on the system became evident; that is to say, prior to the mouth being affected, or any degree of ptyalism produced, though a surprising amendment was observable; the secretions were set to work; he had for two or three nights been bathed in perspiration, his tongue

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became moist, and the digestive faculties of the stomach were again exerted; hitherto he had loathed every thing offered to him, save toast and water, rice and rice-milk, Port wine, &c. and these things were not often relished; but now he expressed a wish for animal food, and was allowed beef, mutton, or veal soup. The mercurial applications were discontinued, and the acid vitriol. dilut. with tinct. lavend. com. was given during the day, with an anodyne at night. Many may suppose that some more powerful tonic, such as the decoct. cinchona, would have been preferable; but experience has taught me, that the recovery of men in similar circumstances, has been often retarded by bracing up the system too suddenly. He took at this period near a pint of Port wine in the day, and a tumbler or two of mild ale, which he also had previous and subsequent to the mercurial course. His convalescence was sufficiently rapid to authorize me to conclude that it was quite unnecessary to alter this treatment; the troop marched on the 13th of June, and three or four days prior to this time his wine was gradually diminished, and his allowance of ale augmented.

The good effects of the mercury in this case was strikingly displayed; the fever, with every concomitant and untoward symptom, after the dysenteric complaint vanished, continued without intermission, and death seemed already brandishing his dart over his devoted victim, until the paralized organs were roused from their lethiferous lethargy by the stimulus of this potent medicine, which has long been highly extolled in the cure of fevers incident to tropical climes. Then, as there is reason to imagine that almost all fevers are governed by the same laws, though differently modified, according to constitution or country, it is highly probable that a more general adoption of the use of this remedy, in private practice, would be productive of the best effects, and considered a most useful auxiliary in the treatment of complaints that not unfrequently baffle all human skill.

When opportunity offers, it is my intention to transmit you an account of the great and inestimable advantages, to be derived from the liberal use of tinct. digitalis, in cases of pneumonia; when carrying bleeding to such lengths as is generally done, frequently undermines the constitution, and produces dropsies, with other evils of no less magnitude than those which it was designed to cure; for that practice, surely, can never be too much decried, which removes one disease, to make way for another more lingering, and equally fatal.

June 15, 1804.

To the Editors of the Medical and Physical Journal.

Gentlemen,

I Again lay before you a few desultory remarks on modern Pharmarcopœias, as a continuation of those admitted into the Medical and Physical Journal for April, which were chiefly applicable to the *Pharmacopoeia Edinburgensis*. These I now offer, although drawn from a different source, may be equally, if not more, acceptable to those whose opinion coincides with mine; I shall, therefore, without farther apology, submit them to your care.

In the preface to the "Edinburgh New Dispensatory," which may be considered as a very excellent translation of that from the college, it appears, that the honor, if there be any, of first adopting the new language in a dispensatory, belongs exclusively to the College of Edinburgh. This claim, I suspect, may be fairly disputed, were it worth the trouble; for if we look into *Pharmacopoeia Medici Practici Universalis*, lately published by Dr. Swediaur, we shall find, that the very last edition, with all the refinements of modern nomenclature, both of Chemistry and Materia Medica, have been adopted, in their most ample acceptation, by that author. If there be any difference it is, that as it has been employed much more extensively, there is, consequently, more confusion.

This Pharmacopœia is dated, "Paris, Feb. 16, 1803," which makes it prior to, if not coeval with, that of the Edinburgh College; it must, therefore, deserve, at least, an equal share of our acknowledgments for having adopted and cultivated this "pure language of science." This may be farther confirmed by attending to the *synonyma*; for when any thing is quoted from *Pharm. Edinb.* it is invariably from the *former* edition; thus *lixivia* is classed with the modern *potassa*. However, to compromise this matter, let us consider these works as contemporaries, and also that they form, as I shall venture to assume, two fair specimens of modern dispensatories, and of the vaunted perfection they have at last attained.

A very slight perusal of this Dispensatory will not permit me to wade through every page, and point out what I conceive to be either the whole of its defects or its perfections. As it is, however, of more serious importance to notice some of the former, lest silence should give currency to some glaring and very reprehensible errors, I

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shall confine these cursory observations to one side of the question only with but little variation.

Through the whole work there appears an avowed intention, that a synoptical list, including all the *synonyma* of each composition, should always accompany and be placed immediately after the title. Had this scheme been properly accomplished and strictly followed, it must have proved a very useful, and in the present state of science, a most necessary guide.

In many instances we may observe, in this list, great confusion; in others, numberless mistakes; some names of the most interesting nature are entirely omitted; others of a most insignificant import carefully retained; and now and then we find no list whatever, where, perhaps, it was most required.

We may frequently observe the *synonyma* spun out with tedious minuteness, and a kind of drawling redundancy; including most of the obsolete and fantastic names; and what is unpardonable, omitting those of *modern* date. What has the present generation to do with the *alcahest de Van Helmont, arcanum corallinum, sal cardui benedicti,* or the *lana philosophica?* Would it not have added more to our knowledge to have left out such as these, and admit a *mercurius corrosivus sublimatus,* or a *hydrargyrus nitratus ruber?*

One would naturally conclude that in a work dedicated to the manes of four illustrious British physicians, as this is, the *synonyma* of at least all the *British* Pharmacopœias could not have escaped the author's notice; that our *creta preparata,* our *zincum calcinatum,* our *hydrargyrus muriatus,* and many other guiltless articles, might have deserved a situation. Had this been attended to, science might have received some support, and much more advantage, than can possibly accrue from the *cadmia fornacum,* a *pulvis principis,* and an endless farrago of absurdities, now generally expunged.

There is, I am sorry to say, one very serious case of the most reprehensible kind, that merits the attention of the whole medical world; whether the blame attach to this Pharmacopœia or to the Pharm. Edinb. is left to others to decide, and to deal out the *quantum meruit* to whom it may be due. I had scarcely opened the pages of Dr. Swediaur's work, when I perceived that the *murias hydrargyri* of the Edinburgh College was not the same as in this Pharmacopœia; that they were two very opposite things; in short, to speak plainly, that *murias hydrargyri* in one

means

means *corrosive sublimate of mercury;* and in the other, *calomel* !!!

This is surely no very trivial error, for the name of a mild and very manageable medicament in one country, to signify a direct poison in another! A blunder of this kind cannot be supposed to be corrected by an apothecary, whose business is to follow implicitly the prescription; but were it otherwise, as I am from the above instance persuaded it ought, *he* may be absent, and his inexperienced tyro may not always have so much faith in his own competency, to act beyond a certain sphere.

The *acetum distillatum* and *acidum acetosum,* both of the London Dispensatory, are admitted by this author as one and the same; the *acide acetique* of the French is likewise comprehended with the former. The *acidum aceticum concentratum* has but one solitary parallel or yoke-fellow, in *acetum radicale.* Here the author should have placed our *acid. acetos.* and the French *acide acetique.* What mischief may we not expect from such an arrangement of names! About four pages are dedicated to the acidum aceticum, and contain a jumble of about seven *formulæ,* in which it is difficult to guess whether a *distilled vinegar* or a *concentrated acetic acid* is to be produced; the last seems very obscure; *pure* vinegar to be distilled from manganese to form a *concentrated* acid.

Under the denomination of *oxyda metallica* are ranked the *scoriæ* metallorum; and, one would also suppose, the metallic *carbonates*; for with *oxydum ferri luteum* and *fuscum* the author classes both crocus martis *adstringens* and *aperiens.*

With *oxydum hydrarg. nigr.* our *hydrarg. cum creta* is placed, and *mercurius gummosus* is also added. Our *hydr. mur. mitis* is out of its place, and appears as if prepared by *sublimation.*

Carbonas and *oxydum zinci* are confounded both in this Pharmacopœia and that of the Edinburgh College; these are synonymized with very crude articles, such as *lapis tutiæ, lapis calamin. purificatus, &c.*

In this Pharmacopœia the word *stibium* is used throughout for *antimonium.* Many of the preparations from this metal are incorrectly and very carelessly detailed. *Tartris stibii* one would naturally conclude to be the exact parallel to *tartris antimonii* of *Pharm. Edinb.* but it is certainly not so, for the former is composed with *acid* of tartar only, and the latter with *cream* of tartar, or, agreeably to the ephemeral jargon, the super-tartrite of potash. So far the

the author, in *his* name, has acted consistently. There is, however, another preparation admitted, which is analogous to that of the Edinburgh Dispensatory, the emetic tartar of former date, and is called *tartaris potassæ stibiatus;* though, to shew the versatility of the new diction, another preparation, in which oxyd of iron enters, and is in all respects analogous, is called *tartris ferri cum potassa.* This, it may be insisted on, implies tartrite of iron merely *mixed* with some potash, and not a *chemical union* of three things. The same observation may be applied to other similar *formulæ,* such as *oxydum stibii cum potassa,* for it is at best very ambiguous, since *cum* may signify either *with* or *by means of.*

The plan of the London College, though chosen perhaps inadvertently, seems better adopted to express a compound containing *cream* of tartar. Natron *tartarisatum,* antimon. *tartarisatum,* &c. might very well serve the present purpose, as *triple* compounds. As *binary* preparations, we might say *tartris,* or tartras (for this is also still indetermined) sodæ, or *tartris* antimonii, to shew that the *acid* of tartar only is employed.

Two methods are prescribed to make an oxyd of antimony (the *pulvis algorothi),* and detailed with as much appearance of precision, and under two distinct heads, as if there was no similitude between them, being separated by three or four other *formulæ.* One is *oxydum stibii album,* the other the same with *præcipitatum* added. In the first, it is one part of muriate of antimony to six or eight of distilled water; in the second there is a *quantum placet* to a *quantum opus.* These and many such proofs may be found in this dispensatory, that shew great carelessness and the slovenly want of attention that seems so generally to prevail. Indeed, a frequent occurrence of a quantum *satis, placet,* or *opus,* has but at best a very awkward appearance; and must always give one an idea of a closet-experiment.

By recent experiments it has been proved, that *animal bone,* that of quadrupeds in particular, contains *magnesia;* how far this may influence the nomenclature of our *pulvis antimonialis,* or of the improvement, the *phosphas calcis stibiatus,* I cannot determine. It is obvious, that not one of the modern Pharmacopœias contains a prescription for *pure* phosphate of lime; perhaps it may be unnecessary;—there has been, however, no attempt to try; and when it has been effected, we must be taught how it is to be *stibiated*

rated and become, as in *Ph. Edinb.* oxydum antimonii *cum* phosphate calcis.

Under the title *alcohola aromatisata*, the list of *synonyma* include what were formerly *spiritus stillatitii, aquæ spirituosæ, vinosæ*, and of course, the *spiritus anisi*, &c. of the London and Edinburgh dispensatories. Nothing can be more improper than this list; it had better have been omitted entirely; for it is worthy of remark, all the *alcohola* are to be made with *rectified* spirit; and all the *synonyma* are composed with *proof* spirit of wine. To complete this part of the work, *alcohol camphoratum* stands first in the list, though the formula is inserted elsewhere.

Amongst a list of *aquæ minerales* are the *aqua barytæ* and *aqua calcis*. I should seriously hope a poison of such energy as *barytic lime-water* may never be suffered to hold such a denomination as a *mineral* water in the general acceptation of this title. If a mineral water be made artificially, it is merely with a view to imitate *Nature;* and it may be boldly asserted, that nature never produced an aqueous solution either of lime or barytes. Moreover, mineral waters, if not drank always as a common beverage, are generally taken more in an *ad libitum* way than one would dare to give this *aqua barytæ*.

If acidum *citricum*, or *oxalicum*, be approved, we should by analogy adopt *tartaricum*, and not *tartarosum;*—the same observation may be applied to *citras* and *oxalas*, which may very fairly include *tartras* in place of *tartris*.

There is a *sulfis sodæ sulfuratus*, but no formula annexed to it: the source from which this is obtained proves it must be an extremely vague preparation, similar to *Bitnoben*, or to some such trash, and very unworthy a place in any dispensatory.

In more places than one, sulfurated hydrogen is rendered simply *gaz hydrogeneum*; and in the second process for *hydrosulfuretum ammoniæ* there seems a material omission: an acid is generally required to be added to sulfuret of potash, to disengage more effectually this gas. It is difficult to decide exactly the author's orthography of *sulphur*, whether he prefers it with *ph*, or an *f* only; perhaps I may have caught the contagion, and, confessing the effect it has, may also use both.

A *solution of potash in water* has nothing to distinguish it from one of the most potent caustics we possess. In this volume, *potassa* is followed by its supposed *synonyma*, in which are *aqua kali puri, aqu. lixiv. caustic.* and a few more of *liquid* alkali. In the present state of science,

potassa

potassa standing alone, must denote what the author does not mean to express, a *solid* simple substance. The danger might very easily have been obviated, potassa *aquosa,* or *soluta,* could not have lengthened it too much, in a work where the length of names have not been measured too sparingly.

From the second process to prepare *baryta,* one would imagine, by the "unde acidum nitricum fugatur," that nitric acid is not decomposed but evolved entire, and might be saved: this, however, is known to be otherwise; and that the acid is destroyed, the nitrogene and oxygene being extricated.

In *pilulæ hydrargyri,* I cannot discover whether each pill is to contain four grains of the *oxyd of mercury,* or four grains of the whole *mass*; if the former be meant, *fiant pilulæ quindecim* would have made it perspicuous; but if it be the *mass,* the prescription is very vague, and wants precision. I may here add, that unless *muriate, acetate, phosphate,* and the *tartrite* of mercury be equivalent to each other in strength, all that has been written respecting this pill the author should revise.

Acidum sulphuricum is accompanied by some instructions to purify it, which, if I mistake not, may render it very unfit for many purposes. The author says, "Si heterogeneis inquinatum sit, ex retorta vitrea vel *ferrea* destillari debet, &c." I should suppose sulphuric acid cannot be rendered pure if it be drawn from an *iron* retort; it must be highly contaminated by *sulphurous* acid; its specific gravity much lessened, and part of the acid lost in forming sulphate of iron, by abrading the retort.

There is a singular *nota bene* attached to the *formula* for acidum nitricum *concentratum.* In order to purify this acid, so very essential to many of the most important operations in chemistry, which require it not only strong but pure; the author directs the usual stale method, to drop in nitrate of silver to separate muriatic acid. This we know will produce the effect, but requires great address to leave no nitrate of silver in the acid, which, by the way, is never *strengthened* by this addition.

The next task to be performed is, to drop into the same acid a solution of *nitrate of barytes*; and this we are advised to continue, "*donec nihil amplius præcipitetur.*"— Now this I affirm to be a complete closet-experiment, or that the whole must have been penned and built upon theory: had the author been possessed of a few practical *præcognita,* he must have known better. Most of our systematic

systematic books have retailed the same trite experiment; and, by trusting to some of these, our author has probably been deceived.

There never can exist any nitrous, or nitric acid, however pure, and even when perfectly freed from sulphuric acid, in which nitrate of barytes does not precipitate; and this precipitation will continue as long as we keep adding, till much more of the solution has been used than the quantity of acid it is meant to purify.

Besides this, would it not be highly absurd to add *concentratum* to an acid, into which so much *water* had been thrown?

That the *muriate* of barytes is also equally insoluble in *muriatic* acid, was, I have reason to believe, first discovered by myself: both this and the above fact respecting the nitrate, with some other peculiarities of barytes, have already been communicated to the public, through the medium of the Philosoph. Magazine.

Some modern Pharmacopœias have certainly been compiled under a most baneful influence of innovation, and a strong propensity to instability, veering rapidly from one point of nomenclature to another; neither knowing where to stop nor where to begin.

It must generally be acknowledged, that even a trifling change in any pharmaceutic composition, whether it be in the name, process, or the proportions of its constituent materials, must, for the most part, be attended with at least some inconvenience, if not danger. These must of course be commensurate with the importance of such compound: thus, when *mercury, opium,* or *antimony* forms the predominant article, we should be more scrupulous to admit any deviation, than where less significant ingredients are employed.

I do not wish to be understood, as having given a decision upon all cases of disparity that occur in modern Pharmacopœias; nor to be considered as opposing the new nomenclature *in toto.* That there is much confusion in the present language; that it is often perverted; often inconsistent with itself; full of ambiguities; very inadequate to the purposes of pharmacy; and evidently, from what has been said, perplexing to the pharmacopolist, are palpable truths, confirmed by daily experience.

Unwarrantable innovations and multiform titles are very incompatible with true science, and ought to be universally exposed and resisted. The length of some titles is preposterous beyond all bounds. Can we obtain an oil from

from any other part of the *fruit* of the orange tree, that we must be constrained to say, *Oleum volatile corticis flavi citrus-aurantii?* Is there so much danger in retaining the *kermes mineralis* as to have recourse to *oxydum stibii hydro-sulfuratum rubro-fuscum?*

I do not profess to be one of those who look forward to, and are constantly endeavouring to cultivate, a kind of finical perfection in nomenclature: my opposition arises from more pure motives. My humble opposition is founded on a strong desire to stem this torrent of novelty; to lessen a number of notorious and dangerous blunders; to discourage subsultory editions of national pharmacy, while the storm of innovation continues; and to advise those whom it most concerns, either to retrace a great deal, if not the whole, of what has lately been promulgated, or rest on their oars till they can proceed with more safety and more propriety. I am, &c.

J. HUME.

Long Acre, June 14, 1804.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Was much pleased with the communications respecting Gout in your Journal, but am very sorry for the unlucky turn they have lately taken. On this account many may doubt the propriety of further agitating the question. I am of opinion, however, that the subject is too important to be so dismissed, and that it presents a wide field for the exertion of ingenuity; nor do I see why it may not be discussed without animosity.

Your sensible and facetious correspondent, *a Constant Reader,* has, I think, properly counterbalanced the hyperbolic praises of the indiscriminate use of cold water to parts labouring under gouty inflammation; and it is to be regretted, that, as he seems capable, he has not attempted to draw the line, and fix the limits, to which the abstraction of heat from such parts may with safety and propriety be carried.

"*That the gout is exclusively an inflammatory affection of the ligamentous and tendinous structure, that it is merely local and unknown as a constitutional complaint, &c.*" is an opinion

opinion that I think with you, Gentlemen, "*will meet with general opposition.*"

It does not, I think, admit of doubt that the inflammation of gout is as specific, that is, as much *sui generis* as that of scrophula, syphilis, or cancer; nor do I think it requires the power of divination to predict the fate of a theory supported on the above, I will venture to say mistaken, opinion. The spurious *left-handed* inflammation of erysipelas is very analogous to that which takes place in gout, and every practitioner must have met with cases of erysipelas, which have required the extremes of opposite practice, in proportion as the affection has occurred to a strong and vigorous, or a broken and debilitated constitution; and as the head or the extremities may have been the subject of the attack. One plan of treatment cannot be made applicable under all the varying circumstances of *any* disease; and least of all in such a one as the gout, which appears under such a variety of forms as to have given rise to so many different appellations, as *atonic, retrocedent, misplaced, &c.* Almost every particular case of this disease is an exception from a general rule, and consequently will require its appropriate mode of treatment.

For your number for October, 1802, I sent you a paper on the subject of this disease, which had then occupied for several years, and still continues to occupy, a considerable portion of my attention. On that occasion I alluded to diminished temperature, which has ever made a considerable part of my practice in the first attacks of the gout, and to the younger part of my patients, where the constitution and activity of the vascular system have been vigorous. On the contrary, experience warrants me in declaring, that an opposite treatment is necessary in the cases of old debilitated habits, where the powers of life are languid, and the excitation of heat small. In such cases, instead of interfering with the regular formation of the paroxysm on the extremities by the indiscriminate abstraction of heat, every mean ought to be used to establish it there by such applications as not only tend to retain, but even in many cases to increase the quantum of heat in such parts. And this is done with the view of preventing parts of more consequence from being attacked, not by a translation of matter, but in consequence of that specific relaxed state of the parts, which constitutes the gouty diathesis, and which, in my opinion at least, renders them incapable of resisting the increased action of the vessels arising from nervous irritability. Though I do not deny that

that many young persons, in whom the gouty inflammation (though widely different) approximates nearest to the common phlegmonous, may not only with impunity plunge their feet into cold water during a paroxysm of the disease, but even that they may frequently be relieved by doing so; yet this I strenuously contend for, that it is a practice fraught with mischief, if persisted in for a course of years. For, by accumulating the susceptibility of the parts, this practice in the first place not only renders the recurrence of the paroxysms more frequent, but subsequently lays the foundation of obstructions at an earlier period than would otherwise take place under a treatment that keeps the exhalents and absorbents of the parts in a state of greater freedom and activity.

As I have little leisure, I shall not enter farther at present into speculations on the subject; but after proposing to your ingenious correspondents the following questions towards a philosophical consideration of the subject, and pledging myself occasionally to take part in a *liberal* discussion of them, I shall proceed to state a few practical observations on the treatment of the disease.

First, I would ask the cause of animal heat in general? Secondly, The cause of the morbid excitation of it in a paroxysm of gout in particular? and Thirdly, Whether it be the cause or consequence of the paroxysm?

Though for the reasons above assigned, I am unfriendly to the application of cold water in a fit of the gout; on the other hand, I am no less so to the common mode of wrapping up the part in several folds of flannel. The true line of practice, as is usual in analogous cases, will be found somewhere between these two points; varying according to the peculiar state of the patient. A certain degree of heat is necessary to induce perspiration, which is generally allowed essential in promoting the most favourable solution of the paroxysm. We equally miss the true perspirable point, by covering the parts with many folds of flannel, and by immersing them in cold water. By the first we add greatly and unnecessarily to the present torments, and subsequent debility of the patient; by the latter we do no more than for the present almost extinguish the fire, by adding fuel hereafter to increase its heat.

As the gout appears to me a general and not a local disease, it follows that I cannot approve of local applications *only* for curing or preventing its paroxysms. Local applications ought to go hand in hand with general ones; and of the latter, gentle saline aperients and diaphoretics,

I have

I have uniformly found the best. I do not believe that hemlock, which I have seen used repeatedly, and the other narcotics, are entitled to the encomiums lately bestowed on them. In general, I find the best effects from doing something more than obviating costiveness with repeated doses of magnesia vitriolata and magnesia alba in pepper-mint water, carefully avoiding all irritation by carrying it so far as to purge, unless the excitement and heat of the system be very inordinate indeed. A grain or a grain and a half of ipecacuanha every six or eight hours, answers well as a diaphoretic. The temperature of the room and bed deserves much attention, as the excitement and generation of heat, except as before stated in persons in the last stage of life, require to be reduced rather than increased.

Sudden transitions from heat to cold, or cold to heat, ought equally to be avoided; and all changes of this nature should be brought about in the most gradual manner. The simple expansive power of heat is generally known. The mischief which must result from the sudden and alternate dilatations and contractions of the minute vessels of a part may be easily conceived.

With regard to external applications, none out of the many, which I have tried, have proved so generally effectual as steam, and occasionally confining the part for a while in a rarer atmosphere. I state this as a fact, the result of much experience; and apprehend, that this mode of treatment anticipates the tedious struggle which the parts affected must otherwise undergo, and disposes them to part with their heat, when excessive, more easily afterwards. This treatment not only has the happiest effects on the paroxysms while present, but renders subsequent ones more mild, and much protracts the intervals between them: and this in proportion to the prudent administration of it. I am much gratified in having possessed so much of the confidence of many judicious persons as to have enabled me to convince them of this truth; and I am little solicitous about others, who imagine that because they are not completely cured of the gout by two or three applications, they have given the plan a sufficient trial!!

I have several patients, who have by a steady use of the Air-pump vapour-bath every other or third day for a month at one time, and afterwards twice a week for the same period, and then by occasional applications, perhaps once or twice a month, have now been free from all appearance of gout for the last two years, and have not only enjoyed

better general health, but have been competent to far more exertion than they had been for the two preceding years.

I beg leave to enclose you a letter of Dr. Stenhouse of Edinburgh, which I trust you will think deserving a place in your Journal: and I hope its having appeared in the Edinburgh Courant of the 9th of January last, will not operate as an objection.

"I have heretofore given some communications on the effects of ginger in the gout; and, although I have received much relief in the painful stage of that disorder, by the daily use of it for these three years past, yet the debility that followed was not less tedious; so that I continued my pursuit of something more efficacious, which I am hopeful I have at last found, and which I consider to be a duty to promulgate. Much have I thought for these eighteen years, and many an unintelligible page have I read upon this subject—but to come to the present question, since I am not writing a book. In the month of April last, a publication was put into my hand, which had escaped my notice, by a judicious acquaintance, to whom I am much obliged, entitled, "Facts and Observations respecting the Air-pump Vapour-Bath, in Gout, Rheumatism, Palsy, and other disorders, by Ralph Blegborough, M. D. Member of the Royal College of Surgeons, London;"—which apparatus, if it has all the effects ascribed to it, should be in every hospital and neighbourhood.—I was much pleased with the successful operation of this apparatus, because it confirmed an opinion I have long entertained, of the immediate cause of a paroxysm of the gout, for of the gout I am only speaking, that I was determined to try the experiment on myself the first opportunity, though on a more simple scale; my opinion will be elucidated by the following remarks and experiments.

"The immediate cause of all acute pain I take to be either *irritation* or *obstruction*; the latter is surely the immediate cause of a gouty paroxysm. To trace causes to their elements is but an uncertain pursuit, and cannot be attempted here. That this obstruction takes place in the minute branches of the arteries, I hold to be true; nor do I see any phenomenon in a fit of the gout, but what may be accounted for by this hypothesis. It will be easy to see that for the present I deny the existence of gouty matter; nor do I consider the earthy concretions formed in the joints, after repeated severe attacks, to be a proof of this, since

since the same phenomenon may be produced from the blood out of the body by a similar process. It is remarkable, that though much has been written on this subject, so little has been attempted, either to prevent the generating this disease, or mitigating the violence of its paroxysms. The reason of this I take to have been a supposition that there was something deleterious in the obstructed matter, and that it was unsafe either to prevent the fit, or tamper with the parts affected; of this prejudice I have had my share until within these three years. There is a prevalent opinion I know, with those unacquainted with the laws of the circulation of the blood, that there are applications, very improperly called repellants, which may drive back the gouty matter; but I tell my gouty readers, there is no operation can take place in the animal system in this sense; in fine, there can be no repellants, nor discutients, where there are no absorbents; but my readers must be cautious how they counteract the intensions of nature, or, if they must use the word, they must beware that by improper applications they do not *repel* the disposition of the system to produce a paroxysm, and thereby send it to some more vital part, which happened to myself the first symptom I had of this disease.

"I come now to describe my practice upon myself. I have already said, I took the hint from the Air-pump vapour-bath eight or nine months ago. The end of September last I was attacked in my right hand, but being in the country, I could not put my intentions in practice until I came home; by this time the fit had acquired its last stage both in pain and swelling. I then got a common tureen half full of boiling water; I laid my hand across, and covered it all over with some folds of flannel; but presently the steam was so hot, that I was obliged to reduce the heat of the water, so as to be able to bear the steam. In a few minutes the pain abated, and in about twenty-five minutes I was perfectly free from pain; and as the steam became so cold as to be no longer useful, I dried my hand and wrapt it up in flannel, and, had it not been for the swelling, I could have used it as well as if nothing had happened. About this time my right foot began to give me some symptoms of an attack; I allowed it to proceed for about 24 hours, until I was convinced it was to be a real fit. I then got a pail with two handles, and from the handles I suspended a towel to rest my heel upon; I then filled the pan with boiling water, so full as not to touch my heel, and covered it over with several folds of flannel for about

 half

half an hour, as in the first experiment; I dried my foot, and wrapped it up in flannel; I was perfectly free from pain, and walked about the room as usual. I repeated this immersion five or six times this day and the following, since when I have had no complaint in my foot; but as I had only once immersed my hand in steam, in two days the pain returned, as if the obstruction had not been perfectly removed. I had recourse to the steam again, which I repeated two or three times. I have waited thus long to give a fair trial to its effects. I am still alive, and have been in good health ever since, though at the border of seventy.

"May I not fairly say, that here are two experiments, and what is more, at different stages of the paroxysms, which have been successful in removing the immediate cause, which I consider to be obstruction only, by the relaxing quality of the steam, or, what is the same thing, diminishing the pressure of the common atmosphere. Finally, I shall continue the ginger daily, and repeat the vapour bath when necessary; and if either stomach or bowels, or other viscera, should be attacked, I shall immerse my whole body in a hogshead of steam. To prevent the frequent return of the paroxysms, I live abstemiously, being certain that, in my case, the habit of body between repletion and inanition will conduce thereto; and such a state will be the most likely to prevent or mitigate diseases of any kind. If what has been said and done shall be thought erroneous, I shall kiss the rod of conviction."

"A. Stenhouse."

The above led to a correspondence between Dr. Stenhouse and myself; the following I copy from one of his letters received the other day. "I fancy I shall shortly have to appear again in print, to contradict a false report, namely, that I have retracted my opinion of hot vapour, and that I have had a severe relapse."

It is beyond every thing gratifying to me, to have my endeavours approved by a person so well qualified by education, great attention to the subject, and personal feeling, to judge of them as Dr. Stenhouse must be.

I trust, Gentlemen, these observations will have a tendency to prove that,

"Est modus in rebus; sunt certi denique fines,
Quos ultrà citràque nequit consistere rectum."

I am, &c.

RALPH BLEGBOROUGH.

Margaret Street, Cavendish Square, June 15, 1804.

Chemical Analysis of a Swedish Fossil, *in which a* new Earth *was discovered.* *By* Mr. Klaproth, *of Berlin.*

THE fossil which makes the object of the present examination is found in the mine of Bastnaos, near Riddarhytta, in the Swedish province of Westmannland. The first description of it is given by Mr. Cronstedt in the Transactions of the Swedish Academy of Sciences, 1751, where he considers it as a species of iron ore, which he names Tungstein; but according to the later researches of D'Elhyar, it essentially differs from the true Tungstone or Scheele ore, and contains,

Lime - - - - - - - - -	54
Iron - - - - - - - - -	24
Siliceous earth - - - -	22
	100

To the authority of this analysis it is probably owing, that Mr. Kirwan refers it to his Ferricalcit. The fossil itself has a crimson colour drawing a little to pink brown, and it is found either massive or scattered in small pieces; on the fresh fracture it is faintly shining, rather a little fatty, and splits very finely. The fragments are angular and sharp edged; it is not transparent and makes a greyish white streak; its powder is reddish grey; it is half hard, brittle, and in a high degree heavy. The specific weight is, according to Cronstedt, 4,988, but after my researches, 4,660. In analysing this fossil I proceeded in the following manner.

I. 1. A piece of the fossil being put into a platina crucible and ignited in a red heat, lost about two per cent. of its weight, changing the red colour into brown.

2. One hundred grains of the levigated fossil were exposed in a platina crucible to a still stronger igniting heat, whereby the powder lost five grains of its weight, and became dark brown.

II. One hundred grains were mixed with two hundred grains of carbonated kali, and ignited in a platina crucible. The mixture would not melt, but came out of the fire as a very brittle red brown mass, which was triturated and washed with boiling water. The lixivial liquor passed through the filtrum without colour, and it remained also clear, on being neutralized with nitric acid, which showed

 that

that the fossil contained no Scheele oxyd. No trace of its containing an acid could likewise be discovered by the solutions of silver, mercury, lead, iron, or barytes. The powder which had been thus sufficiently edulcorated, was digested with nitric acid, and after the siliceous earth had been separated, a solution of caustic kali was added, and the liquor kept boiling. When I had separated the alkaline liquor by the filtrum, I neutralized it with muriatic acid, and mixed with it carbonated kali, but no precipitation or turbidness ensued.

III. 1. Two hundred grains of the levigated fossil were digested in the boiling heat with two oucnes of muriatic acid, to which was afterwards added one ounce of nitric acid. After the whole quantity, except the siliceous earth, had been dissolved, the liquor was filtrated, and the remaining siliceous earth being washed and ignited, weighed sixty-eight grains.

2. The straw-yellow solution being neutralised by carbonated ammonia till it became no more turbid, was mixed with succinate of ammonia, and every time this was added a white caseous precipitation was occasioned, which on stirring the liquor disappeared again, and only a pale red precipitate of succinate of iron was deposited. The precipitation of the last substance being carefully finished, it was collected, washed, dried, and strongly ignited. The oxyd of iron thus obtained weighed nine grains.

3. The clear solution, after being entirely freed from iron particles, was precipitated by carbonated ammonia, whereby no disengagement of gas took place. The precipitate being collected, edulcorated, and dried, had the appearance of a loose milk-white powder which weighed 168 grains. After it had been deprived of the carbonic acid and water, it appeared with a cinnamon colour, and its weight was now 109 grains.

4. The liquors used for the edulcoration were evaporated, and the ammoniacal neutral salts that were obtained, being volatilised at a moderate heat, only a small trace of muriatic neutral salt was left behind.

From the subsequent examination it will appear, that the earth, which makes the principal constituent of that fossil, essentially differs from any of the known earths in several properties, on which account I consider it as a *new earth*, or an earth of its own, unless we are informed of the contrary by future experiments. The characteristical property of this earth to receive a light brown colour by

2 ignition

ignition has induced me to give it the name of *Ochroït earth (Ochroïta)* which is derived from the Greek word οχρος (flavescens) and to the fossil itself the mineralogical name of *Ochroïtes.*—100 parts of this Ochroïtes have yielded,

Ochroït earth,	III. 3,	- -	54,50
Siliceous earth,	1,	- -	34,
Oxyd of iron,	2,	- -	4,
Water, &c.	I. 2,	- -	5,
Loss		- -	2,
			100

The properties of this new earth are the following.

1. The Ochroït earth, on being precipitated from acids by carbonated alkalis, absorbs part of the carbonic acid, and on being dried it imbibes water; 100 grains of this earth precipitated by carbonate of ammonia, and dried, lost 23 grains when saturated with nitric acid; 100 grains of the same earth lost by ignition 35 grains, consequently the proportion is, in 100 parts,

Earth - - - - - -	65
Carbonic acid - -	23
Water - - - - - -	12
	100

2. When freed from water and carbonic acid, the earth shews always a cinnamon colour, which is not produced either by iron or manganese particles.

3. When exposed to the heat of a porcelaine furnace in a charcoal crucible it is not in the least altered.

4. It glows before the tubus fusorius with a luminous appearance, but is not dissolved by borax, and merely mixed with it, by which it loses its particular colour.

5. The carbonated earth easily dissolves with effervescency in acids, and the taste of those solutions is astringent. When diluted the solutions appear without colour, but in a concentrated state they receive an amethystine colour. The ignited earth however is slowly soluble by acids in the cold, and the solutions, particularly that with nitric acid, appear with an orange colour, which disappears on diluting them with water.

6. The solution of this earth in sulphuric acid crystallises; the crystals which appear in the middle of the vessel seem to be octaëdrous, and are of an amethystine colour, and with difficulty soluble in water; whereas those

which are formed on the sides of the vessel appear in radiant needles, and dissolve much easier in water.

7. On adding a saturated solution of sulphat of soda to a concentrated and neutralized solution of the earth in nitric or muriatic acid, both solutions are decomposed, and a white precipitate, with difficulty soluble in water, is formed, consisting of a combination of the earth with a small portion of sulphuric acid. By boiling this precipitate with double its weight of carbonat of soda, the earth will be separated in a carbonated state, and by means of this proceeding it may be obtained pure, and freed from any heterogeneous mixture.

8. Sulphurous acid easily dissolves this earth, and yields needle-like crystals of a pale amethystine colour.

9. The solution of this earth in nitric acid has little tendency to crystallization.

10. The muriated solution however yields prismatic crystals which are soluble in spirit of wine, to which, when burning, they impart no particular colour.

11. The solution in acetic acid gives no manifest crystals but rather coagulates to a thick mass.

12. It is precipitated from its solution in nitric and muriatic acids by carbonated alkalis with a milk-white colour, which however becomes greyish-yellow, when the earth is precipitated by caustic alkalis.

13. The prussiate of kali precipitates this earth from its neutral solution with a milk-white colour, and the precipitate makes a clear solution with nitric and muriatic acid, but when the earth contains a trace of iron the solution gets a bluish tint.

14. Tincture of galls produces no change, as likewise water impregnated with sulphurated hydrogen.

15. The succinats precipitate the earths in white flakes.

16. Phosphat of soda produces a white precipitate which disappears on adding nitric or muriatic acid, which is likewise the case with tartrit of kali.

17. A considerable precipitate is also effected by oxalic acid and oxalata. The oxalat of Ochroït earth, which is thus produced, differs from the former precipitates by being insoluble in nitric and muriatic acid, whence a nearer affinity of the oxalic acid to the Ochroït earth is evident.

18. Fixed alkalis have no action on the Ochroït earth, and do not dissolve it.

19. Ammonia acts under certain circumstances on this earth, but in a weak degree. A solution of 100 grains of carbonated earth, which however seemed not to be entirely free

free from iron, was precipitated by carbonat of ammonia, and at the same time supersaturated with it. A few days after, during which time the liquor was frequently shaken, it was separated by the filtrum, perfectly saturated with sulphuric acid, and exposed in the warmth. It became turbid, depositing a grey precipitate, which, collected and dried, weighed 1¼ grains. It was dissolved in nitric acid, and mixed with prussiat of kali, whereby a precipitate of prussiat of kali was produced, after the separation of which the carbonat of kali precipitated a small portion of the earth in white flakes from the rest of the liquor. This proceeding may be employed to discover and to remove the least trace of iron.

According to these results the Ochroït earth comes near to the gadolin or ytter-earth, as it makes, like this earth, a transition of the simple earth to the metallic oxyds. The properties in which it agrees with ytter-earth consist in forming reddish crystals with sulphuric acid, and in being precipitated by prussiats; but it differs by having no sweet taste when combined with acids, and by being only weakly acted upon by carbonat of ammonia, and by appearing with a light brown colour, when ignited; farther, by not dissolving in borax or in phosphates before the tubus fusorius, whereas ytter-earth melts with both to a clear pearl.

To the Editors of the Medical and Physical Journal.

Gentlemen,

MR. CUMING has, as he is justly entitled to, the best thanks of Academicus for his obliging reply, (p. 518 of your 11th volume, to the case stated, p. 461 of the same.) It was before omitted to be noticed, that about the middle of the day, and before dinner, immediately preceding the first day of manifest illness, that is, on the Monday, and before his dinner, the child had suffered a fall of a very few inches, with his whole weight upon his belly, over the knee or thigh of rather a careless or hasty handler, who had so lifted him for the purpose of wiping the soles of his shoes which he had wetted in the grass. But, as the child did not immediately cry, and his body with instantaneous elasticity of the abdominal parts rebounded upon the knee or lower part of the thigh of the handler, who was standing with the left foot upon a step of twelve inches

inches above the right foot; and as also, after being loosed, the child went away, and whined but for a very little while, only small and temporary hurt was believed to have been occasioned to him, rather towards the left part of the abdomen, by the indiscreet lifting; which was therefore forgotten for the time.

Animadversion on the treatment will afford pain to those who have witnessed both the knowledge and the judgment of the practitioner in other cases; but, the apothecary certainly expressed an opinion, that if cold had been the cause of the illness, it would have been indicated by a cough. He also sent the saline mixture on the Wednesday, or, at first, to remove the fever, and not for sickness at the stomach, the appearance of which had been very trifling indeed. The fever seemed to have spent itself in its own violence during Wednesday night, and next morning it was gone, in consequence of the saline mixture, as the apothecary expressed his opinion: but coma appeared to have already ensued, at least as one not of the faculty thought. Great debility and much sleepiness had certainly then already ensued; and the apothecary, on his coming, consented to the physician being called in.

No less splendidly expressed than true is the sentiment which Mr. Cuming has delivered in the last sentence of page 520; and the sentence that immediately succeeds it, and closes his letter, induces me to state, that the head of the child was remarkably large, very thinly covered with hair, the seams imperfectly closed, the occiput extended horizontally, but terminating in a conformation almost perfectly hemispherical.

But notwithstanding the largeness of the head, and the peculiar extension of the occiput, the child's health had always been good, excepting an illness from which an emetic had relieved him about a year before; he was robust, active, and occasionally sprightly; at other times he appeared heavy, which was imputed to the size of his head. Two days previously to his last illness, that is, on the Sunday, he had eaten a small, but of course heavy, mince-pye. At the age of three months he passed an easy vaccination, which at six months more was proved good by variolous inoculation. His temper and manners were uniformly easy, quiet, and engaging.

Further Observations upon the case, either from Mr. Cuming, or from any other gentleman of the Faculty, would be an additional favour conferred upon,

Your's, &c.

June 16, 1804 ACADEMICUS.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Observations on the Treatment of Scirrhous Tumours and Cancers of the Breast. By JAMES NOOTH, Surgeon Extraordinary to His Royal Highness the Duke of Kent, &c. &c. Octavo, pp. 101. Bath, 1804.

AFTER an historical introduction, the author commences his observations with an anatomical description of the breast, and particularly those parts in which cancer originates; he then explains the appearances and symptoms of the incipient disease, and its usual progress. The experiments he tried on himself by inoculation with diseased fluids, are a sufficient proof of the intrepidity of his investigations. He next proceeds to mention the different kinds of treatment which have excited the hopes of practitioners for a time, but which have been found ineffectual on more extensive experience. Among these, *cicuta*, *mercury*, *antimonials*, *flores martiales*, *belladonna*, *solanum*, *arsenic*, and *electricity* are mentioned, all of which, particularly the last, have been useful in tumours of the breast, though they will not cure *cancer*.

Mr. N. then examines the question, whether scirrhous affections proceed from any predisposing state of the constitution or from accidental causes, and determines in favour of the latter opinion, and on this determination he properly founds the importance of extirpation. A minute account of the operation follows, with the subsequent treatment and observations on the *prognosis*; to which are subjoined, a number of cases to confirm their utility and propriety.

The author concludes his truly practical pamphlet with the means of alleviating those cases of open cancer which cannot be relieved by the foregoing methods.

" Strumous swellings of the breast, and small encysted tumours, are easily distinguished by surgeons. Indeed, it seems barely possible to mistake those affections for schirrous tumours, all attendant symptoms being duly considered.

" The advanced stages of cancer, where ulceration has taken place, become extremely painful to the miserable patient, and resist the most rational treatment which can be suggested by medical skill or surgical assistance. A proper attention to such diet as will not stimulate must be paid, and the bowels should be kept, by gentle

gentle means, moderately lax; opiates in small doses, and frequently given, will procure *temporary* relief. No dressings, I think, yet employed by our best surgeons, have been found to be of essential service; but such as do not stimulate, yet exclude the atmospheric air, seem best calculated to avoid irritability; and it is always necessary to keep the sores as clean as possible.

"No attempt to restrain fungous excrescences can be made without exciting, *in some degree*, irritability; therefore such as are most gentle in their effects should be preferred. These circumstances are more obstinate and distressing than any others with which a surgeon ever has to contend. He might, *in a slight degree*, palliate distress, but cannot remove it.

"I shall now," says Mr. N. "with much satisfaction, offer the result of some experiments with the carbonic acid gas on cancerous ulcers of the breast. I am aware that this gas has been employed for the same purposes by many gentlemen of the most respectable abilities; but, I trust, the mode of application here described, will be found more effectually convenient than any other hitherto adopted.

"A poor woman was my patient at the Infirmary, and a general consultation was held on her case; when we were unanimously of opinion, that no relief could be obtained by extirpation. I therefore proposed the application of the carbonic acid gas to the ulcer, as it might probably afford some mitigation of her sufferings; which idea was warmly supported by Dr. Ewart, and readily acceded to by the other medical gentlemen.

"On the following day, Mr. White, apothecary to the Infirmary, happily conceived a plan for keeping it always in application with the sore, by means of a small bladder, which was to be affixed to the breast by *sticking plaster*. The neck of the bladder was cut off, so as to make a circular aperture into it, of such dimensions as to correspond nearly with the size of the ulcer of the breast. A round hole of the same size was cut in a piece of soft leather, spread with adhesive plaster, and large enough to surround the ulcer. The cut end of the bladder was introduced through the hole in the leather, and its edges folded back and stuck to the plaster on the opposite side, forming somewhat the shape of a round hat, the plaster resembling the rim, and the bladder, when distended, the crown. In order the more effectually to secure the attachment of the bladder to the plaster, and to make it air-tight, the end had cuts round it half an inch deep, and as much from each other to make it sit smoothly; and narrow slips of plaster were applied round their junction, both within and without. The large plaster was then fixed on the mamma, the aperture in its centre, with the bladder fixed to it, being placed exactly over the ulcer, no part of which was touched by the plaster. A small orifice was made at the fundus of the bladder, sufficient to admit a tube of about a quarter of an inch in diameter, which communicated with the top of an inverted cylinder, suspended upon water, which cylinder was filled with carbonic acid gas. The bladder being closely squeezed,

to

to expel the atmospheric air it contained, and the above mentioned tube being inserted into the orifice formed to receive it, and tied by a ligature passed over the bladder, the inverted cylinder was pressed down in the water, so that the carbonic acid gas was made to rush through the tube, and distend the bladder, which was tied above the tube, to prevent the escape of the gas. As soon as the bladder was collapsed, so as to shew that much of the gas had evaporated, it was filled in the same manner as before; and this operation was repeated twice or three times a day, as it appeared necessary.

"It is a proof of this simple apparatus fully answering its purpose, that the bladder, when filled at night, was found to contain a considerable quantity of the gas on the following morning. When the carbonic gas was thus applied to the sore, it first occasioned a sensation of coldness, which lasted for a few minutes, and was afterwards succeeded by a glowing warmth, which continued more than half an hour; the same sensations were uniformly expressed by the patient after each successive application of the gas."

Medical Sketches of the Expedition to Egypt from India, by JAMES M'GREGOR, A. M. *Member of the Royal College of Surgeons, Surgeon to the Royal Regiment of Horse Guards, and lately Superintending Surgeon to the Indian Army in Egypt.*

UNDER the title of Sketches we have the history of the diseases of the army which came from India to co-operate with the English Army in Egypt.

After remaining very healthy during a long period on shipboard, and after a very perilous navigation of the Red Sea, the Indian Army, consisting of about 8000 Europeans and Sepoys, landed at Rossier on the western shore of the Red Sea. In going from Rossier to Ghenné on the Nile in Upper Egypt, the Indian Army nearly followed the route travelled and described by Mr. Bruce.

From the want of water, from the intense heat, and from the hot winds, this march of an army, across the greater Desert, must have been attended with many difficulties. From Ghenné the army marched to Girge, the capital of Upper Egypt, was there embarked in boats, and after a navigation of nearly 400 miles, reached Cairo in August 1801.

Mr. M'Gregor, the Chief of the Medical Department of the Indian Army, informs us, "From the nature of the prevailing diseases, the campaign in Egypt was, in a particular degree, a service of danger. To their regret, the Indian Army arrived too late in Egypt, to share in any other dangers than those arising from the diseases of the country; and here the medical gentlemen had the post of honour. Intrepidity is more a military than a medical virtue; but seldom, I believe, has there been a greater display of it, than

than among the medical officers in Egypt, whose duty it became to reside in the pest houses."

To shield him from the severity of criticism, Mr. M'Gregor offers this ingenuous apology for his authorship; it weighs with us, and we doubt not it will with readers in general, "The life of a medical man in the army is at no time very favourable to literary pursuits; mine has been peculiarly unfavourable; and I have had little time or opportunity, since I first entered the army, to attend to the ornaments of diction. For the last fifteen years of my life, mostly spent in the East-Indies, West-Indies, or at the Cape of Good Hope, sometimes at sea, sometimes on land, my time has been occupied in a laborious attention to my duty in the army."

Of three parts, into which this work is divided, the first gives the history of the expedition, the second treats of the causes of the diseases, and the third gives the history of diseases.

In assigning the causes of disease, Mr. M'Gregor expresses his confident hopes, that the modern chemistry will unfold many of them to us. Mr. M'G. we presume, was in India when he wrote his book; he seems equally sanguine on this subject, as many ingenious men in this country were some years ago.

The author adduces a particular instance of a fact which we are assured holds generally good, "That heat, though the degree of it be very considerably increased, unless combined with intemperance or some other cause, is very rarely the exciting cause of disease. At Rossier, and in crossing the desert, the degree of heat was very great, and both the officers and men, from Madras as well as Bengal, complained that it was more unsupportable than they had ever felt it in the hottest seasons. Yet, at the above period, the army enjoyed an uncommon degree of health, though they necessarily were much exposed to the sun: but their minds as well as their bodies were at this time exercised. Not only on crossing the desert, but for some time after we reached the Nile, at Ghenné, we all believed, that we were in the neighbourhood of a division of the French Army, and the Indian Army was for some time kept in the constant hopes of being engaged."

The chapter on the plague is the most valuable in the book, Mr. M'G's remarks are of the most consolatory nature; much, he thinks, may be done in the treatment of the disease, and every thing in the prevention, which in the Indian Army appears to have been attended with the most complete success. He remarks, "In Europe, but more particularly in Britain, much of the dread, and much of the real danger, that attended the most fatal diseases in this country are now done away, by the late improvements in medicine and in chemistry.

"The time was, that fever, when it broke out in different parts of England, proved little less fatal to whole villages and towns than the plague does in the countries where it resides. From the improved practice of the treatment of fever, but more from our knowledge of the means of destroying contagion and preventing its spreading

spreading, the mortality from this class of diseases is now comparatively small. The small pox, that plague which once carried off so great a proportion of the population of Europe, now bids fair to be expunged from the catalogue of diseases. May we not indulge a hope, that, as the intercouse of civilized Europe with the countries of which the plague is now the scourge, becomes more regular and intimate, we may be enabled to extend to them our discoveries and improvements, and so direct them to the means of divesting the plague of its terrors, and reducing the mortality from it to the scale of that of fever and the small-pox in Europe." He brings testimony of the good effects of the nitrous fumigation. From the reports made to the author by the surgeons of the Indian Army, it appears that the treatment with mercury and nitrous acid was by far the most successful.

On the ophthalmia of Egypt, Mr. M'G. gives strong evidence of the disease being communicated by contagion, and he entertains the same opinion of Guinea-worm. This, to us, appears strange; but we recommend Mr. M'G's curious chapter on the subject. His experience in liver complaint, dysentery, and fever, appears to have been extensive in every part of the world, and he extolls nitric acid, and the new remedies, equally in these diseases as in venereal complaints. We suspect that a short residence in England will convince Mr. M'G. that his opinions on these remedies are now old fashioned.

Some cases of tetanus are adduced, which Mr. M'G. treated successfully with the warm bath and mercury, and the volume concludes with some remarks on the yellow fever, and a table of the points of resemblance between that disease and plague. On this part much is not said, the subject is barely broached; but it opens a mine of the most curious investigation, and we doubt not it will be pursued. Mr. M'Gregor was, perhaps, the first who had extensive experience of yellow fever and of the plague, the two most fatal diseases that afflict mankind; and he hints that he is in possession of ample materials to have enlarged this volume.

Cases of Small Pox, subsequent to Vaccination, with Facts and Observations, read before the Medical Society, at Portsmouth, March 29, 1804. *Addressed to the Directors of the Vaccine Institution. By* William Goldson, *Member of the Royal College of Surgeons, in London.* Portsea, 1804, pp. 71.

The importance of every document relating to Vaccine Inoculation, and the interest which the very title of the pamphlet before us cannot fail to excite, will justify us to our readers in giving its contents somewhat at large. This we shall do in the order in which we find them in this treatise, which, previous to publication, was read before the quarterly meeting of the Medical Society of Portmouth, Portsea, and Gosport, March 29, 1804.

The medical men of this town and neighbourhood, it seems, have had

had some little imputation thrown on their professional zeal, from the tardiness with which they adopted vaccine inoculation, considering their proximity to the metropolis, and the ready communication with the head quarters of medical science which this part of the kingdom cannot fail to enjoy.

Vaccine Inoculation was even at last introduced in this place, according to Mr. Goldson's account, by *authority*, some matter being first sent by the Sick and Hurt Board (obtained we believe from the Vaccine Pock Institution) in the autumn of 1800, to Mr. Rickman, Surgeon of Marines, at Portsmouth, with instructions to try its efficacy on such recruits as had never had the small-pox. From this source Mr. G. first inoculated patients in November of the same year, and the practice soon spread pretty generally over the neighbourhood.

The date of the first inoculation at Portsmouth, (three years and a half from the present time) is surely a sufficient plea to exculpate the medical public of this part of the kingdom from any serious charge of indifference to professional improvement; nor is the plea much strengthened by such arguments as the following.

"The doctrine of the cow-pox was known to them soon after its promulgation. They attended to it with a desire to make themselves masters of the subject. At the same time, they could not remain ignorant of the many instances of failure, which occurred in its infancy. Neither could they help remarking, what must have been obvious to every attentive observer—the apparent instability of the practice. With every fresh instance of a spurious case they heard of new instructions and cautions in respect to taking the matter. These instructions deviated occasionally, from the 13th down to the 7th or 8th day; and yet they were told, that on this point depended the whole success of the operation. Besides, their local situation prevented them from having any opportunity to see the disease. Common prudence therefore, in a case so important, dictated, that they should not rashly venture on a practice, so seemingly replete with difficulties, the detection of which wholly depended upon experience alone. The vaccine pustule had not been seen by any of them, except in the representation of an engraving. Although those engravings were, most assuredly, very accurate, and the instructions equally explicit; yet, it must be acknowledged, there are many casual circumstances in pathology, which neither engravings nor instructions, however accurate, can convey a perfect idea of, and which can only be obtained by clinical attendance."

Spurious cases, fatal cases, and instances of failure, have been uniformly reported from the beginning of the practice to the present instant, and the opinions of experienced inoculators (as far as a very few years can give experience) have been constantly and are still at variance as to the time of taking, and mode of preserving matter.

Had these circumstances therefore been deemed of sufficient

importance

importance to delay the introduction of the new practice, it would still have been unknown and untried in this as in every other part of the country distant from the spot where the first experiments were made. The want of personal experience is a still more singular cause of hesitation, when the descriptions of the disease, both by writing and engraving, were confessedly accurate, and only deficient in "certain casual circumstances in pathology," which could not be known but by multiplied experiments, carried on by men of talents and observation in every variety of situation. Where was the personal experience of those medical men, (many of them in no respect inferior to the Portsmouth practitioners in sound judgement and prudent caution) who did not hesitate to begin vaccine inoculation with no other materials than the publications of Jenner, Woodville, and Pearson, and a few glasses of vaccine matter?

But to proceed with the author's cases.

The first case is the child of Mr. Grant, who was inoculated with cow-pox in October 1800, by Mr. Paytherus, and again inoculated in December 1803, by the author, with small-pox matter by way of proof of the efficacy of the first inoculation, which was acknowledged by Mr. Paytherus to be in every respect the regular vaccine disease. The variolous inoculation produced an inflamed pustule of an ambiguous appearance, which for six days was unattended with fever though the local inflammation was considerable, so that the author at first considered it as "a strong effort to produce small-pox," but no more. But on the eighth day the symptoms became more marked.

"Immediately on seeing the arm however on the next morning, Monday the 26th, I observed a visible alteration. The suppuration was manifestly increased. The areola was become extremely florid, and radiated, so as to be much less circumscribed, than it had hitherto been, bearing evident marks of absorption. The child was pale, not warmer than usual, but its pulse were quicker than they should have been, or than they ever had been before.

"These observations I kept to myself, as I perceived the anxiety of the parents led them to watch me with an inquisitive eye. But when I asked them, whether the child had been ill during the night, or whether they had observed any kind of appearance on the body, they instantly shewed me six or seven eruptions. Three of them were on the forehead and temple, one on the right ala of the nose, one on the opposite shoulder, and one or two on the breast. The child had been rather feverish during the early part of the night with restlessness, and according to the servants account transiently delirious.

"In the evening I was sent for in haste. I found it had been seized with a violent rigor, from which the attendants had, with difficulty, recovered him by warm wine and flannels. When I saw him, he was in a high degree of fever, his countenance much flushed, and there was a considerable efflorescence on both arms. It had the same characteristic appearance as the rash, which is frequently

frequently seen in inoculated small-pox. Two or three eruptions, of the same kind as those seen in the morning, were readily distinguished through the efflorescence. The degree of fever was so much, that I thought it necessary to order some medicine to abate it, with a gentle anodyne to allay the irritation."

After this the fever abated, and in a few days the eruptions disappeared. The disease was considered by several medical gentlemen in the neighbourhood as well as by Mr. Goldson, as decidedly variolous.

This case gave rise to some correspondence with Mr. Paytherus, who had vaccinated the child, with Dr. Willan, and Mr. Ring, who agreed that the second disease was *not* the true small-pox, but an anomalous train of symptoms induced by irritation of the skin from the introduction of variolous matter, and which may happen at any time to persons who have already had the small-pox.

The second case is that of a child vaccinated in December 1800, and exposed to small-pox in February 1804, not by inoculation but by contagion, sleeping with another child under variolous inoculation. On a Thursday some time after this exposure the vaccinated child was attacked with fever, which continued till Sunday, when seven distinct eruptions appeared on the face, neck, and arms, which were pronounced by three respectable practitioners in Portsea to be decidedly small-pox. The eruptions continued five days but never maturated.

Mr. G. remarks, that here they were not attended with rash, and that in this respect the similarity to small-pox is as remarkable as in the former case, the natural disease being less frequently attended with efflorescence than the inoculated.

The third case is perhaps the most important. An infant was vaccinated in January 1801, went through the disease regularly, and matter taken from the same was employed with success to vaccinate another child, who has proved its efficacy by resisting small-pox repeatedly. In April 1803, the former child was exposed as much as possible to the contagion of small-pox, and compleatly resisted it. On March 1804, Mr. G. was desired to see the same child, who had then several eruptions on the body. Their history was the following.

"Not having been called early enough to witness the beginning and progress of the disease, I was the more particular in my inquiries. This I found was the fourth day of the eruption; she was taken ill on the Wednesday evening preceding, complaining of sickness, pain in the head and back, accompanied with considerable fever. On Thursday and part of Friday, she continued nearly the same. Supposing it to arise from cold, the mother was not alarmed, but gave her some diluting drink, and kept her in bed. About Friday noon she began to be better, but not totally free from fever. On Saturday morning she was perfectly recovered; but while she was dressing, a few eruptions were perceived in her face, neck, and shoulders, but were not much attended to at the time. On Sunday

the

the number increased, and still more came out on Monday morning. They now began to consider them as something more than pimples. For the first time they suspected small-pox. In this they were justified, from variolous infection being in the school; two or three other children having taken it, one of which died, in a confluent sort, under my care soon after. This induced them to send for me.

"In a case so important, I should not have been justified in trusting to my own opinion. The case was therefore seen by Dr. Kerr of the Military Hospital, Dr. Thompson and Mr. Stevenson of Haslar, Mr. Rickman of the Marine Infirmary, Mr. Taswell and Mr. Merritt of Portsmouth; and by Mr. Gaselee, Mr. Hill, Mr. Seeds, and Mr. Weymouth of Portsea; all of whom expressed themselves perfectly satisfied of its being small-pox. Mr. Wilkinson of Portsmouth likewise saw the child, but entertained some doubts from the pustules drying off early on the seventh day. These doubts were removed however by the subsequent experiments."

The subsequent experiments were the following: Four children were inoculated by different practitioners with matter taken from the pustules of the abovementioned case, and with the following result.

"My own patient was a delicate child, about six months old. It had considerable fever and rash, which was preceded by two or three convulsions. The rash subsided about the usual time; when I could not discover more than eight or ten eruptions; four of which maturated, and went off on the seventh day.

"The child which Mr. Weymouth inoculated was ten months old. It had about fifty eruptions, most of which maturated kindly, and went off about the same time.

"The child upon whom Mr. Cooper tried the matter, was nearly of the same age. It was followed by more than a hundred pustules, which, like the former cases, went off on the seventh day.

"Mr. Seed's patient was a strong plethoric child at the breast, seven or eight months old. This child had considerable fever, with extensive rash, and more than a thousand pustules; most of which did not turn until the ninth or tenth day."

These cases being selected for the express purpose of experiment, were attended to by most if not all of the gentlemen who had visited the former case, and all were perfectly satisfied of their being variolous.

The above are the Author's cases; two others, attended with similar results, are given from the authority and personal observation of Mr. Weymouth of Portsea, in which, after satisfactory vaccination, a subsequent inoculation of small-pox produced fever, a regular pustule at the inoculated part, and in one of the cases a pustular eruption containing a virus, which by farther inoculation was found to produce a disease in every respect similar to genuine small-pox.

The author then enumerates the circumstances which have decided to his entire conviction the two great questions implicated in

 these

these cases, namely, whether the first inoculation produced the genuine and perfect vaccine disease, and whether the subsequent disease acquired from small-pox patients, either by inoculation or by contagion, was true and complete small-pox.

The original source of the vaccine matter sent to Portmouth appears unexceptionable. It was transmitted by the Sick and Hurt Board for the express purpose of experiment; the persons inoculated therewith, exhibited a well-defined pustule with all the characteristic marks of cow-pox, leaving a permanent scar, and rendering the persons thus affected, *for a time*, not susceptible of small-pox infection either by inoculation or contagion.

In answer to the question, whether the subsequent disease in the cases above mentioned was genuine small-pox, the author gives the following statement.

"Respecting the small-pox in Case II. Worsfold's child:—

"1. Three years and three months after vaccination, she was exposed to infection from a child in the same house, who was inoculated for that disease.

"2. There appeared seven or eight eruptions, attended with all the symptoms which usually precede, and accompany small-pox, exactly at the period when such infection might be expected to take place. They went off in a few days without maturating, as frequently happens in the inoculated disease.

"Respecting the small-pox in Case III. Luscombe's child:—

"1. Three years after vaccination, she was exposed to variolous infection, in a school where several of the children were taken ill of that disorder, one of which died of it under my own care, and three others, as I have been informed, experienced the same fate.

"2. There was an eruption of above a hundred pustules, attended with the usual symptoms of small-pox, some of which fully maturated, and continued to the seventh day, the others going off rather earlier without maturation, as frequently happens in distinct warty small-pox.

"3. Matter taken from these pustules communicated the small-pox to four patients, under four different practitioners. In that under my own care, it produced but a few pustules, in two other cases, from fifty to a hundred, and in the fourth, above a thousand, accompanied with protracted disease. In all of them the pustules corresponded exactly with those of genuine small-pox. Therefore in both the subjects of Case II. and III. I consider the disease to be truly variolous."

The above is an abstract of the Author's evidence of the insufficiency of common vaccine inoculation; the entire Pamphlet claims an attentive perusal from all the partisans, friends, and well-wishers of Dr. Jenner's discovery.

Among the objections that have at various times been brought against vaccination, its insufficiency for permanent security has been sometimes urged, but no very precise attempt had been made, we believe, to give this opinion the support of actual experiment, before the cases related in the present publication.

The

The promoters of vaccination, after having quieted the scruples of the hesitating wavering parent on the supposed risk to life by cow-pox inoculation, the probability of introducing foreign disease, and the general security against future small pox, must often have heard the question, "How do I know that my child is secure for life? Will it not be necessary to re-inoculate him every three, four, or five years, to preserve in his constitution the same power of resisting small-pox infection?" Medical men have hitherto not scrupled to answer to such objections, that the strong analogy of cow-pox with the disease which it prevents, renders it highly probable that the security it affords from future infection, remains for life precisely as complete as immediately after inoculation: that, as it is the regular progress of small-pox inoculation, and not the quantity of disease, which ensures the future safety of the patient, so it is highly probable that the same law of the constitution obtains in vaccination; and especially, that positive experience proves that in casual vaccination, or wherever it is taken immediately from the cow, a lapse of many years, of half a century, in no degree diminishes its preservative power. Moreover, as it has never been pretended that the vaccine inoculation was in point of security from future small-pox, *preferable* to the variolous, it should be borne in mind, that in many constitutions the security produced even by previous small pox, however severe, is only comparative, and does not prevent the subsequent accession of fever, and the maturation of small-pox pustules after exposure to powerful infection.

The objections of Mr. Goldson, if valid, would go to the entire abolition of vaccine inoculation taken from the human subject; for the inference deduced from his statement would be, that the security given by such inoculation, though at first compleat, is every year gradually diminishing, not merely to a certain point of susceptibility to small-pox, but finally to the same degree of insecurity as if no inoculation had ever been performed.

The author, aware of the permanent value of vaccination *immemediately from the cow*, makes an exception to this species of cow-pox, and of course attaches the highest importance to the slight, but well defined, difference in colour and appearance which the two species exhibit. He likewise supposes that the usual place of casual vaccination, the hand, is particularly susceptible to irritating causes when the cuticle is abraded, and hence perhaps more efficacious. In this point however, we believe he is mistaken, as, if we recollect right, casual vaccination on the forehead, the shoulder, and other parts, has proved a permanent security for an indefinite number of years.

The author dedicates his treatise to the Vaccine (Vaccine-Pock) Institution, with peculiar propriety, as the original matter was furnished by this society, and as the duration of their practice affords them an opportunity of instituting further experiments on this infinitely important subject.

Dr. Trotter's Essay on Drunkenness.

(Continued from Vol. xi. pp. 568—570.)

After instancing the effects of intoxication in rendering persons unsusceptible of cold, and insensible to pain, Dr. T. in a cursory way, adverts to the very different manner in which different nations are affected by ebriety. The next subject of investigation is the *chemical* effect of alkohol on the fluids and solids of the human body.

" Alkohol, certainly, deoxygenates the blood in some degree; at least, decompounds its floridity. The arterial blood of a professed drunkard approaches to the colour of venous; it is darker than usual. The rosy colour of the eruptions about the nose and cheeks does not disprove this; for it is probable that these spots attract oxygen from the atmosphere through the cuticle that covers them, just as Dr. Priestley observed venous blood, confined in a bladder, to acquire a more florid colour from the exposure to his dephlogisticated air. In the sea scurvy, a disease where, in the advanced stage, the blood is always found of a very dark colour, we know that spirituous liquors, more than any thing else, have a manifest tendency to aggravate every symptom. This fact has often come under my observation; and a very correct statement of the kind is to be found in my first volume on the Diseases of the Fleet, page 410.

" The component parts of alkohol are not sufficiently known; but it has a large proportion of hydrogen, which is proved by its combustion in pure air, when water is produced. Thus fourteen ounces of alkohol burnt in a proper apparatus, with a sufficient quantity of oxygen gas, yield sixteen ounces of pure water; hydrogen and oxygen being the component principles of water, as proved by modern chemistry. Alkohol has a strong attraction for water, and readily mixes with it, and it is the chief vehicle in which it is drank; but in what manner it is separated from the water within the body, would be difficult to find out. The evolution of hydrogenous gas is chiefly learned from the fœtor of the breath; it seems to be sent off from the surface of the lungs, in a disengaged state; and is often so pure in its kind from the expiration of a dram-drinker, that it is easily inflamed on the approach of a candle. The process of respiration probably effects this; and I should think at such a time there must be an unusual consumption of vital air. No experiments have been made on the blood of inebriates: and we are not informed, that in the circulating state, it exceeds the common temperature of the human body. But it is said, on the authority of Mr. Spalding, the celebrated diver, that after drinking spirits he always found the air in his bell consumed in a shorter time than when he drank water. This gentleman was lost in Dublin bay in 1783, in attempting to take the treasure out of an imperial Indiamen that sunk there, on her passage from Liverpool, where she was built: the misfortune, it appeared, was owing to the negligence of the attendants in not renewing the air.

" If

"If the blood of drunkards is strongly charged with hydrogen, must not that very much affect the quality of the biliary secretion, independent of any effect it may have on the liver itself? Might not the resinous matter which bile is found to contain, be greatly increased after spirituous potation? The liver is an organ very liable to be injured by hard drinking; this gives cause for suspicion, that the *chemical* operation of alkohol on the blood and the bile, has also some share in producing hepatic diseases. It may increase the generation of *biliary calculi*, and the disposition to dyspepsia, which prevail in the constitution of drunkards.

"Is the perspirable matter of drunkards at all impregnated with hydrogenous gas?

"I am much of opinion that the *chemical* operation of alkohol, has a great influence in retarding the healing of wounds, and in converting them into ulcers. I believe all surgeons agree, that such an effect takes place after hard drinking, though it is generally attributed to the fever and inflammation which it occasions. The common appearance of eruptions on the surface of the body, may in a great measure be referred to the same source. The exhalations of hydrogenous gas, which arise in some places, are very apt to irritate the eyes, and bring on a painful ophthalmia; from which it is fair to infer, that the same effect may take place, from blood loaded with hydrogen, circulating through the minute vessels of the *tunica adnata*, as the disease is a common one with wine-bibbers. The fœtor of ulcers, in all drunken subjects, is unusually great; and I shall speak of this under the diseases.

"But the most interesting part of this doctrine, is the *combustion of the human body*, produced by the long and immoderate use of spirituous liquors. Such cases are on record; and a collection of them, with remarks, is to be found in the *Journal de Physic*, year 8, by Pierre Aime Lair. I subjoin a copy of that memoir, taken from the Philosophical Magazine, vol. vi. p. 132, by Mr. Alexander Tilloch."

Then follows a considerable number of instances of persons who had been addicted to the immoderate use of spirits, undergoing such combustion; and Dr. T. concludes that part of his subject with the following reflections.

"I shall not extend further these observations on the combustion of the human body, as I flatter myself that after this examination every person must be struck with the relation which exists between the cause of this phænomenon and the effects that ensue. A sytem embellished with imaginary charms is often seducing, but it never presents a perfect whole. We have seen facts justify reasonning, and reasoning serve afterwards to explain facts. The combustion of the human body, which, on the first view, appears to have in it something of the marvellous, when explained exhibits nothing but the utmost simplicity: so true it is, that the wonderful is often produced by effects which, as they rarely strike our eyes

eyes, permit our minds so much the less to discover their real cause.

"Some people may, however, ascribe to the wickedness of mankind what we ascribe to accident. It may be said that assassins, after putiing to death their unfortunate victims, rubbed over their bodies with combustible substances, by which they were consumed. But even if such an idea should ever be conceived, it would be impossible to carry it into execution. Formerly, when criminals were condemned to the flames, what a quantity of combustible substances was necessary to burn their bodies? A baker's boy, named Renaud, being condemned to be burnt a few years ago at Caen, two large cart-loads of faggots were required to consume the body, and at the end of more than ten hours some remains of the bones were still to be seen. What proves that the combustion in the before-mentioned instances was not artificial is, that people often arrived at the moment when it had taken place, and that the body was found in its natural state. People entered the house of Madame Boiseon at the time when her body was on fire, and all the neighbours saw it. Besides, the people of whom I have spoken were almost all of the lowest class, and not much calculated to give rise to the commission of such a crime. The woman mentioned in the transactions of Copenhagen was of the poorest condition; Grace Pitt was the wife of a fishmonger; Mary Jauffret, that of a shoemaker; and two other women, who resided at Caen, belonged to the lowest order of society. It is incontestible, then, that in the instancess I have adduced, the combustion was always accidental, and never intentional.

"It may be seen, that a knowledge of the causes of this phænomenon is no less interesting to criminal justice than to natural history, for unjust suspicions may sometimes fall on an innocent man. Who will not shudder on recollecting the unfortunate inhabitant of Rheims, who after having lost his wife by the effect of combustion, was in danger of perishing himself on the scaffold, condemned unjustly by an ignorant tribunal!

"I shall consider myself happy if this picture of the fatal effects of intoxication makes an impression on those addicted to this vice, and particularly on women, who most frequently become the victims of it. Perhaps the frightful details of so horrid an evil as that of combustion will reclaim drunkards from this horrid practice. Plutarch relates, that at Sparta, children were deterred from drunkenness by exhibiting to them the spectacle of intoxicated slaves, who, by their hideous contortions, filled the minds of these young spectators with so much contempt that they never afterwards got drunk. This state of drunkenness, however, was only transitory. How much more horrid it appears in those unfortunate victims consumed by the flames and reduced to ashes! May men never forget that the vine sometimes produces very bitter fruit,—disease, pain, repentance, and DEATH!

How

How far are the Acts of the Drunkard to be palliated?

"This is a point of great importance in civilized society: but it is not the province of the physician to decide with a legal view. Every human being, who was ever intoxicated, must have found, on reflection, that he had said and done things which he would have neither thought of nor acted in a state of sobriety. The peace of his neighbour has, therefore, required that the drunkard should answer for his conduct. But it may be asked, ought a madman to answer for his deeds? Certainly. The man who becomes mad from immoderate vinous potation must be amenable to law, because that madness was of his own seeking. Again, it may be said, that the drunken man, being as much in a state of delirium as any maniac, ought he to be punished for doing what he is unconscious of? Yes: But punishment might be mitigated here, if it shall appear that no preconceived malice had prompted him. This is, I think, what lawyers call *mal propense*. Were a man, during ebriety, to sign a deed, by which he should dispose of his property in an improper manner, to the injury of his family; quere, would such a deed be legal? It might be deemed legal; but to me it would appear unjust to confirm it; because the man never formed such a resolution when he was in his senses. The acts of the drunkard, in this respect, ought not to be valid: for this plain reason, in the same condition he is not allowed to injure his neighbour, or society at large, with impunity; and therefore he ought not to be permitted to injure either his family or himself. All debts incurred, or money lost at play, in the state of intoxication, ought to be declared *null*, on the loser appealing in a proper manner when sober. This would prevent the gamester and systematic villain from taking advantage of the honest man, and would correct some of the greatest evils in the community.

"When a drunken man is lavish of promises which he never made when sober; be assured his kindness is not worth your thanks.

"When you hear a drunken man boasting of his generosity to his friends; beware, how you a receive a favour from that man.

"When you hear a drunken man telling family secrets, whether of his own, or those of other people; put that man down for a fool; and take care what you say in his presence.

"When you hear a drunken man boasting of his favours from the *sex;* be assured, that man has no honour.

"When you hear a drunken man bragging of his courage; mark that man a coward

"When you hear a drunken man vaunting of his riches; be assured, he cannot be estimable for his virtues.

"When you hear a drunken man pitying misfortunes which he did not relieve when sober; it is the strongest proof that he possesses no goodness of heart.

"Receive no donations from a drunken man; lest he should ask them again when sober.

"Avoid the company of a drunkard; for if he insults you, and you

you should insist on satisfaction, he will plead want of recollection, as apology.

"Let the sober man beware of the society of drunkards, lest the world should say, that he means to take an advantage of their credulity."

Account of Diseases in an Eastern District of London, from May 20 to June 20, 1804.

ACUTE DISEASES.	
Febris Intermittens	1
Pleuritis	2
Rheumatismus Acutus	4
CHRONIC DISEASES.	
Dyspnœa	8
Tussis cum Dyspnœa	14
Hæmoptysis	3
Pleurodyne	2
Epilepsia	1
Cephalalgia	4
Convulsio	1
Paralysis	3
Syncope	2
Ascites	4
Hæmorrhois	3
Chlorosis	6
Scrophula	5
Rheumatismus Chronicus	10
PUERPERAL DISEASES.	
Enteritis	2
Menorrhagia Lochialis	5
Ephemera	6
INFANTILE DISEASES.	
Pertussis	6
Scrophula	2
Herpes	2
Tinea	1
Vermes	2

MEDICAL AND PHYSICAL INTELLIGENCE.

Notice from the VACCINE POCK INSTITUTION, *No.* 44, *Broad-Street, Golden-Square, June* 20, 1804.

THE public mind being of late much disturbed in consequence of successive reports during the whole of the last year, and especially of late, by publications of cases *esteemed* to be instances of the Small Pox two or three years subsequently to the Cow Pock, the Medical Establishment of this Institution have thought it their duty, whatever may be their own opinions, not to be inactive and silent.

Accordingly, I am directed to state, that in the last fortnight a number of subjects, who had undergone vaccination in the year 1800 (*the first year of the new practice at any professed institution,*) have been submitted to the test or counter proof, *variolation*, in circum-

circumstances the most favourable for exciting the Small Pox.—Besides these trials, additional ones have been instituted in subjects who were vacinated in Dr. Pearson's early practice in 1799. Further,—Reports have been already received at the Institution from several provincial correspondents, who were witnesses to whole parishes of subjects vaccinated under Dr. Pearson's and Mr. Keate's inspection, or with matter furnished by them early in the year 1799.*

A very brief, but it is presumed, conclusive statement of evidence collected from these sources on the question, with which some persons have agitated the minds of so many families, is intended to be laid before the public in a week or ten days. This statement, it is apprehended, will be the most proper return to the respectable author,† who has lately addressed his pamphlet, "*To the Directors of the Vaccine Institution*," very justly conceiving that "the point at issue is within the power of this Institution, if they will give directions for a number of persons to be inoculated with Small-pox matter, or exposed strongly to infection, who were vaccinated early in the practice.

As no other professed Vaccine Institution but this has been established long enough to ascertain this demand, it has been determined to comply.

W. SANCHO, Secretary.

True Character of the Plague.

To compensate for all the distresses brought on humanity by the campaigns in Egypt during the late war, it is consoling to reflect upon the discoveries which have been made by English and French physicians and officers, of the TRUE NATURE OF THE PLAGUE. Among all the writers of both nations, Affalini and Sir Robert Wilson deserve most credit. The latter disproves the old superstitious notion, that this disease is imported from Turkey into Egypt. He proves that it is the effect of exhalation from the putrid matters left by the overflowing of the Nile, and from other liquid and putrid matters in other parts of the country. He says it is communicated by the atmosphere, and that persons recover by being removed from the places where they are affected by it, to an air beyond

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* It may be very important information to affirm, that the matter now used at this Institution was THAT originally taken in January and February, 1799, by one of the Physicians, from cows in Mary-le-Bone Fields and Gray's Inn Lane, with the addition, about three years ago, of matter from the Milanese, by Dr. Sacco. But it does not appear that this extensive succession has at all altered the properties, nor that there is any difference of properties among these different sources of matter. The experience of this Institution does not justify the conclusions that the failure of Cow-pock in preventing the Small-pox depends in general upon the selection of matter on a particular day.

† See Mr. Goldson's Cases of Small-Pox subsequent to Vaccination, lately published.

beyond the reach of putrid exhalation. He denies its ever being contagious, except under those circumstances of filth and close confinement which now and then render all other fevers liable to become sources of infection. The general belief in these facts is calculated to do away the accumulated evils of ages, which have arisen from a belief of the plague being a specific disease, and kept alive like small-pox, only by being propagated from one person, or one country, to others. Millions of lives have been lost by this error. Sir Robert Wilson does not hesitate to declare, that the plague might be annihilated in Egypt, or made a mild disease; and mentions, as the means for that purpose, the use of lime, coals, paving the streets of their cities, the formation of roads, the white washing of the apartments in every house, the use of well-burnt brick instead of wood in their buildings, and the draining off all stagnant waters. He says, the most effectual remedies now employed for its cure are embrocation of the body with sweet oil, and the use of mercury.

Discovery of a new Vegetable Acid.

Mr. Klaproth, on examining a saline substance, found on the bark of the white mulberry tree, (Morus alba L.) in the botanic garden of Palermo, by Mr. Thomson, discovered that it contained a new acid. The substance itself is of a browinsh colour, covers and penetrates the bark of the tree. Its taste resembles that of succinic acid. Thrown on burning coals, it puffs up and burns, leaving a terreous residuum; 100 parts of water dissolve 35 parts of it in the heat, and 15 parts in the cold. By evaporation, needle like radiant crystals are obtained. Barytes makes no precipitate in the solution of this salt. Alkaline carbonates however occasion a brown precipitate, the colour of which, by calcination, is changed into white. It is dissolved with effervescency in nitric acid. Sulphuric and oxalic acid occasion, in its solution in nitric acid, precipitates, which indicate the presence of lime. Accetit of lead forms in it an insoluble precipitate which was easily reducible on burning coals; nitrate of mercury formed white flakes, and nitrate of silver brown streaks. These experiments induced Mr. Klaproth to conclude that this salt, collected on the bark of the mulberry tree, is composed of lime and a particular vegetable acid. On decomposing this salt by the carbonate of ammonia, Mr. Klaproth obtained a precipitate of carbonate of lime. The liquor yielded by a proper evaporation, long straight prisms; and even the water of these crystals precipitated the nitric solutions of copper with a green colour of kobalt, pale red; of iron, brown; and of mercury, silver and lead, brown. The same liquor made water and acetite of lead slightly turbid, and likewise the muriates of tin and of gold, and the nitrate of nickel. In order to obtain this acid pure, Mr. Klaproth employed the precipitate, obtained from a mixture of a solution of the calcareous salt and acetite of lead. This precipitate

cipitate was afterwards decomposed by diluted sulphuric acid. The proportions employed were forty-five grains of the precipitate and twenty-four grains of acid, diluted with one drachm of water. The sulphate of lead was separated by the filtrum. The liquor being evaporated, yielded by crystallization, thirty-four grains of acid in fine needles of a pale wood colour. The natural calcareous salt was also directly decomposed by sulphuric acid, and the result of which was the same. He employed thirty grains of the salt, and twelve of sulphuric acid. The properties of this new acid consist in its having a similar taste to succinic acid; in being exposed to the contact of air, without experiencing any change; in dissolving with ease in water and alkohol; in not precipitating metallic solutions. When distilled, part of it is destroyed, but the rest sublimed, which proceeding may be employed to separate it from the adhering extractive matter. Mr. Klaproth proposes to call it *moronitic acid*, and its saline combinations, *moronitates.*

M. Demmenie has noticed that the solution of copal may easily be effected by exposing it to the vapours of alcohol, or oil of turpentine. For that purpose an alembic may be filled one-fourth with either of these fluids, and some pieces of copal suffered to be suspended by threads in it, over the surface of the fluid. After having made the alcohol, or oil of turpentine, boil, the copal becomes liquified, and is dissolved.

The oliferous Chinese radish, the *raphanus Chinensis annuus oliferus*, is much cultivated in Piedmont and the Milanese. From 3½ ounces of seed, a farmer, named Grandi, obtained a produce of 583 pounds, which yielded 200 pounds weight of oil. The Chinese extract from the seed half its weight in oil. It is employed by the Italians for culinary purposes, burns without emitting any smoke, and gives light as clear as common oil. In the Milanese, the seed is sown in March, the land having been ploughed in autumn, and again before the seed is sown, but not manured. The plants are to be thinned to the distance of three or four inches from each other.

An experiment has lately been made at Lyons to try the effects of vaccination in preserving fine-woolled sheep from the ravages of the scab, which prevailed in the neighbourhood, and had already extended its pernicious influence to a flock of common sheep, belonging to M. Flanders, of Espina. Another flock of the Merino's breed, belonging to the same gentleman, was submitted to vaccination, which produced its usual effect, and preserved the flock in the midst of the contagion. Forty of the sheep which had undergone the operation were placed among the infected flock, but they withstood the attacks of the disease, while not one of those which had not been vaccinated escaped.

BILL

BILL OF MORTALITY,

For Portsmouth, New Hampshire, for A. D. 1801.

By LYMAN SPALDING, M.B. &c.

COMPLAINT.	AGE.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept	Oct.	Nov.	Dec.	Total.
Aphtha	3 weeks								1					1
Apoplexy	39 years												1	1
Atrophy	3 weeks, 50, 3 years, 4 months, 55 years	1					2			1			1	5
Cancer	65, 76 years								1		1			2
Cholera Infantum	6 to 18 months							1	1	2	3			7
Consumption	54, 50, 56, 75, 44, 35, 27, 83, 65, 69 56, 50, 60, 44, 32, 55, 26, 40, 48, 32	4	1		1	3		1	3	1	2	2	2	20
Debauchery	25, 29 years				1				1					2
Dropsy	28, 41 years						1	1						2
Dropsy in the Brain	12 months			1										1
Epilepsy	4 weeks, 10 years, 8 weeks	1		1					1					3
Fever, Bilious	26, 30, 45, 18, 28, 18, 14, 64, 8, 33			2		1	2			2	1		2	10
Fever, Pulmonic	12 days, 15, 21, 84 years		1		1						1		1	4
Hooping Cough	3 months to 4 years										4	7		11
Illiac Passion	95 years											1		1
Mortification	60 years	1												1
Nephritis	74, 66 years						1				1			2
Old Age	82, 99, 75, 76, 80	2						1		1		1		5

Palsy	54, 42, 68, 64, 77, 46, 64, 64, 43, 60, 19, 80			2	2		3			2			3	12
Phrenitis	31 years		1											1
Scrophula	8 years				1									1
Still-born		1												1
Casualties. Burnt	71 years												1	1
Casualties. Drowned	60, 18, 45 years						1					1	1	3
Casualties. Fall	17 years										1			1
Casualties. Frozen	38 years	1												1
Casualties. Paregoric	6 months										1			1
Total		11	3	6	6	4	10	4	8	9	15	12	12	100

Portsmouth, situated 43 d. 5 m. north, 70 d. 41 m. west from London, contains about 5600 inhabitants. The town has been very healthful, not one in fifty-five having died. A bilious remitting fever prevailed the whole year, which in several instances, in September and October, manifested the malignant type. From June to October, the cholera infantum was prevalent. From September to the end of the year, the hooping cough was endemic, very few children escaped it. A fifth part have died of phthisis pulmonalis! "*Is there no balm in Gilead? Is there no physician there?*

M. Deyeux

M. DEYEUX has invented a new filter for purifying water. The substance through which the water passes is charcoal, in small pieces, but not reduced to powder. At the School of Medicine in Paris, he poured water taken from the kennel, and some in which putrid carcases had been immersed three weeks, upon his filtres, and in a few minutes it ran off in both cases perfectly clear, limpid, and without taste or smell.

Messrs. HARMAN and DEARN, of Rotherhithe, have invented an apparatus for filtering water, which will obviate the inconveniences of the filtering stone. The new apparatus consists of a stone ware vessel, perforated with holes upon which coarse gravel is laid, upon that a stratum of fine gravel, and lastly fine sand. Upon the top of the sand is laid a perforated and loaded board or plate of earthern ware, to prevent the sand from being disturbed when the water is poured in. The fineness and depth of the siliceous sand will regulate the perfection and expedition of the process, and the delicacy of the vessels and sand may be insured by changing the latter from time to time; for example, once in a fortnight or three weeks.

The following is a prize-question proposed at Paris:—"What are the characters that, in animal and vegetable matter, distinguish the active and passive substances in the operation of fermentations?"

Mr. DONOVAN, author of the Natural Histories of British Birds, Insects, &c. will shortly lay before the public the Natural History of British Shells, including coloured figures, arranged after the Linnean manner, with scientific and general Observations on each.

To CORRESPONDENTS.

Mr. CHEVALIER's Treatise on Gun-Shot Wounds will be noticed in our next Number.

A Communication, with a Drawing, has been received from Mr. EDGAR.

ERRATA.

Page 540, line 13, for *nor never will*, read *nor ever will.*
543, 3, from the bottom, for *sensation*, read *cessation.*
538 to 546, inclusive, (running title) for *on opium*, read *on hydrophobia and tetanus.*
547 and 548, for *on opium*, read *on diabetes.*